

Summary Report

for the ISO 16140-2 validation of

- **NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx)** for the detection of Shiga-toxin gene (*stx1* and *stx2*) from Shiga-toxin-producing *E. coli* STEC
 - **NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx and eae)** for the detection of Shiga-toxin gene (*stx1* and *stx2*) and intimin gene (*eae*) from Shiga-toxin-producing *E. coli* STEC
- in raw meat (except poultry) and produces and fruits

MicroVal study number	2020LR92
Method/Kit names	▪ NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx) ▪ NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx and eae)
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This report consists of 114 pages, including 9 appendices.

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LIST OF ABBREVIATIONS

Method & protocol

BPW	Buffered Peptone Water
CCA	Chromogenic coliform agar
CFU	Colony Forming Units
CH	CHROMagar
eae	Intimin gene
g	Gram
h	Hour
ILS	Interlaboratory Study
IMS	Immunoseparation
LAMP	Loop-mediated isothermal amplification
LS	NEOGEN Lysis solution
MCS	Method Comparison Study
min	minute
MIX	Mix of strains
ml	Milliliter
MR	MicroVal Method Reviewer
mTSB	Modified tryptone soya broth
MVTC	MicroVal Technical Committee
RLOD	Relative Level of Detection
stx	Shiga toxin gene
TBX	Tryptone-Bile-X-Glucuronate Agar

Interpretation

AL	Acceptability Limit
alt	Alternative method
$\bar{D}$	Average difference
FN	False Negative results
FNR	False Negative Ratio
FP	False Positive results
FPR	False Positive Ratio
LOD	Limit of Detection
NA	Negative agreement
NA _{FN (alt)}	Negative Agreement due to false negative alternative-method results
ND	Negative Deviation
ND _{FN (alt)}	Negative Deviation due to false negative alternative-method results
PA	Positive Agreement
PA _{FP (alt)}	Positive Agreement due to false positive alternative-method results
PD	Positive deviation
PD _{FP (alt)}	Positive Deviation due to false positive alternative-method results
ref	Reference method
RT	Relative Trueness
SE	Relative Sensitivity
SP	Relative Specificity
TNA	Total Negative Agreement
TND	Total Negative Deviation
TP	True Positive

Raw data

*	result obtained with the ISO/TS 131136 method on colony
-	No typical colonies but presence of background microflora
(x)	Number of colonies in the plate
1/2	50% level of target analyte
d	Doubtful result
NC	Non-characteristic PCR curves
NI	No identification
m	Minority level of target analyte
M	Majority level of target analyte
p	Pure culture level of target analyte
pos (+)	positive/growth/target detected
st	Plate without any colony
Bold typing	Artificially inoculated samples

Foreword

The technical protocol and the result interpretation were carried out according to ISO 16140-2:2016, ISO 16140-2/A1:2024 and the MicroVal technical rules.

Validation protocol	- ISO 16140-1 (2016): Microbiology of the food chain - Method validation — <i>Part 1: Vocabulary</i> - ISO 16140-2 (2016) & ISO 16140-2/A1 (2024): Microbiology of the food chain - Method validation — <i>Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method</i> - MicroVal technical committee interpretation of ISO 16140-2 v.2.6
Reference method ♦	ADRIA internal method based on ISO/TS 13136 (November 2012): Microbiology of food and animal feed - Real-Time Polymerase Chain Reaction (PCR) based method for the detection of food-borne pathogens. Horizontal method for the detection of Shiga-toxin producing (STEC) and the determination of O26, O103, O111, O145 and O157 serogroups
Method/Kit name	NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx) NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx and eae)
Scope of validation	> Raw meat (except poultry) (25 g test portion) > Raw meat (except poultry) (375 g test portion) > Produces and fruits (25 g test portion)
Certification organization	Lloyd's Register

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

1 INTRODUCTION

This document reports a MicroVal validation study, based on ISO 16140-2, of alternative method for the detection of Shiga-toxin-producing *Escherichia coli* (STEC) in raw meat (25 g and 375 g test portions), and produces and fruits, was carried out by ADRIA as the MicroVal Expert Laboratory.

The alternative methods included in the scope of the validation are:

- NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx*) method,
- NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*) method.

These methods use the following kits:

- NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx*) (MDA2STX96) for *stx* positive *Escherichia coli* detection,
- NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*) (MDA2STXEAE48) for *stx* and *eae* positive *Escherichia coli* detection.

After an enrichment step:

- Pre-warmed BPW for 10-18h at 41.5°C for raw meat (except poultry), 1:10 dilution,
- Pre-warmed BPW for 10-18h at 41.5°C for raw meat (except poultry) (up to 375 g test portion), 1:4 dilution,
- Pre-warmed BPW for 18-24h at 41.5°C for fresh produces and fruits (25 g test portion), 1:10 dilution.

The DNA extraction is performed using the NEOGEN Lysis solution (LS).

The LAMP (Loop-mediated isothermal amplification) test is carried out using:

- The NEOGEN® Molecular Detection Assay 2- STEC Gene Screen (*stx*) Reagent Tubes for *stx* genes detection,
- The NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*) Reagent Tubes for the *stx* and *eae* genes detection.

The confirmation step is performed by:

- Direct streaking onto selective agar plates.
- The typical colonies are confirmed by:
 - NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx*) (MDA2STX96),
 - NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*) (MDA2STXEAE48)

The *stx* and *eae* tests included in the Kit MDA2STXEAE48 are both simplex reactions, it was thus proposed to test only the Kit MDA2STXEAE48 during the validation and to proceed to two interpretations:

- detection of *stx*.
- detection of *stx* and *eae*.

During the study, the following criteria were evaluated:

- Method comparison study (MCS)
 - o Sensitivity
 - o Relative level of detection
 - o Inclusivity and exclusivity
- Inter-laboratory study (ILS)

2 METHOD PROTOCOLS

2.1 Alternative method

See the flow diagram of the alternative method in **Appendix 1**.

2.1.1 Principle

The NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx*) is used with the NEOGEN® Molecular Detection System for the rapid and specific screening of *Escherichia coli* genes *stx1* and /or *stx2* in enriched samples.

The NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx and eae*) is used with the NEOGEN® Molecular Detection System for the rapid and specific screening of *Escherichia coli* genes *stx1* and/or *stx2* and *eae* in enriched samples. Both *stx* and *eae* are simplex reactions.

The NEOGEN® Molecular Detection Assay uses loop-mediated isothermal amplification to rapidly amplify nucleic acid sequences with high specificity and sensitivity, combined with bioluminescence to detect the amplification.

An algorithm interprets the light output curve resulting from the detection of the nucleic acid amplification. The results are analysed automatically by the software (Version 2.5.0.0 was used for the MCS study and 2.7.0.1 for the ILS study).

Presumptive positive results are reported in real-time while negative results are displayed after the assay is completed. Presumptive positive results should be confirmed using direct streaking of enriched sample onto selective agar plates.

The method is performed in several steps:

- Enrichment
- Lysis
- Molecular detection (*stx* detection) or (*stx* and *eae* detection) depending on the MDA 2 - STEC Gene Screen kits used
- The confirmation step.

2.1.2 Protocol

Three protocols are available depending on the category and/or the sample size tested (See **Table 1**).

- **Enrichment step**

Table 1 - Protocols

Protocol	Category	Test portion	Enrichment volume	Enrichment temperature	Enrichment time
①	1-Raw meat (except poultry)	25 g	225 ml pre-warmed BPW ISO (41.5°C) (d 1:10)	41.5 ± 1°C	10 - 18 h
②	1-Raw meat (except poultry)	375 g	1125 ml pre-warmed BPW ISO (41.5°C) (d1:4)	41.5 ± 1°C	10 - 18 h
③	2-Produces and fruits	25 g	225 ml pre-warmed BPW ISO (41.5°C) (d 1:10)	41.5 ± 1°C	18 – 24 h

- **Lysis step**

The DNA extraction is performed using the NEOGEN® Lysis solution (LS on 20 µl enriched sample

- **Molecular detection** (*stx* detection) or (*stx* and *eae* detection)

The LAMP (Loop-mediated isothermal amplification) test is carried out using:

- NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx*) (MDA2STX96) for *stx* positive Escherichia coli detection.
- NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*) (MDA2STXEAE48) for *stx* and *eae* positive Escherichia coli detection.

The amplification is performed on 20 µl lysate

- **Confirmation**

The confirmation is done using the following protocol :

- Streak of 10 µL onto selective agar plates (TBX and CHROMagar STEC).
- Incubate the plates 18-24 h at $37 \pm 1^\circ\text{C}$.
- Using a single colony, perform detection of virulence genes colonies using the same molecular test as for the screening step (NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx*) or NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx and eae*): resuspend an isolated colony in 0.5 mL of BPW and proceed to lysis and amplification.
- Pooling of up to 10 colonies is possible to screen for detection of virulence genes. From pooled colonies giving a positive result, test individual colonies.

In case of discrepancy between the MDA test and the isolation and confirmation result using the protocol described above, it is recommended to subculture the enrichment broth (0.1 + 9 mL BPW) and incubate 4 - 24 h at $41.5 \pm 1^\circ\text{C}$ prior to streak onto the selective agar plates. Screen up to 50 colonies as recommended in the ISO/TS 13136

It is possible to store the enrichment broths and the lysates for 72 h at $5^\circ\text{C} \pm 3^\circ\text{C}$.

2.1.3 Restriction

Poultry meat is excluded from the scope.

2.2 Reference method*

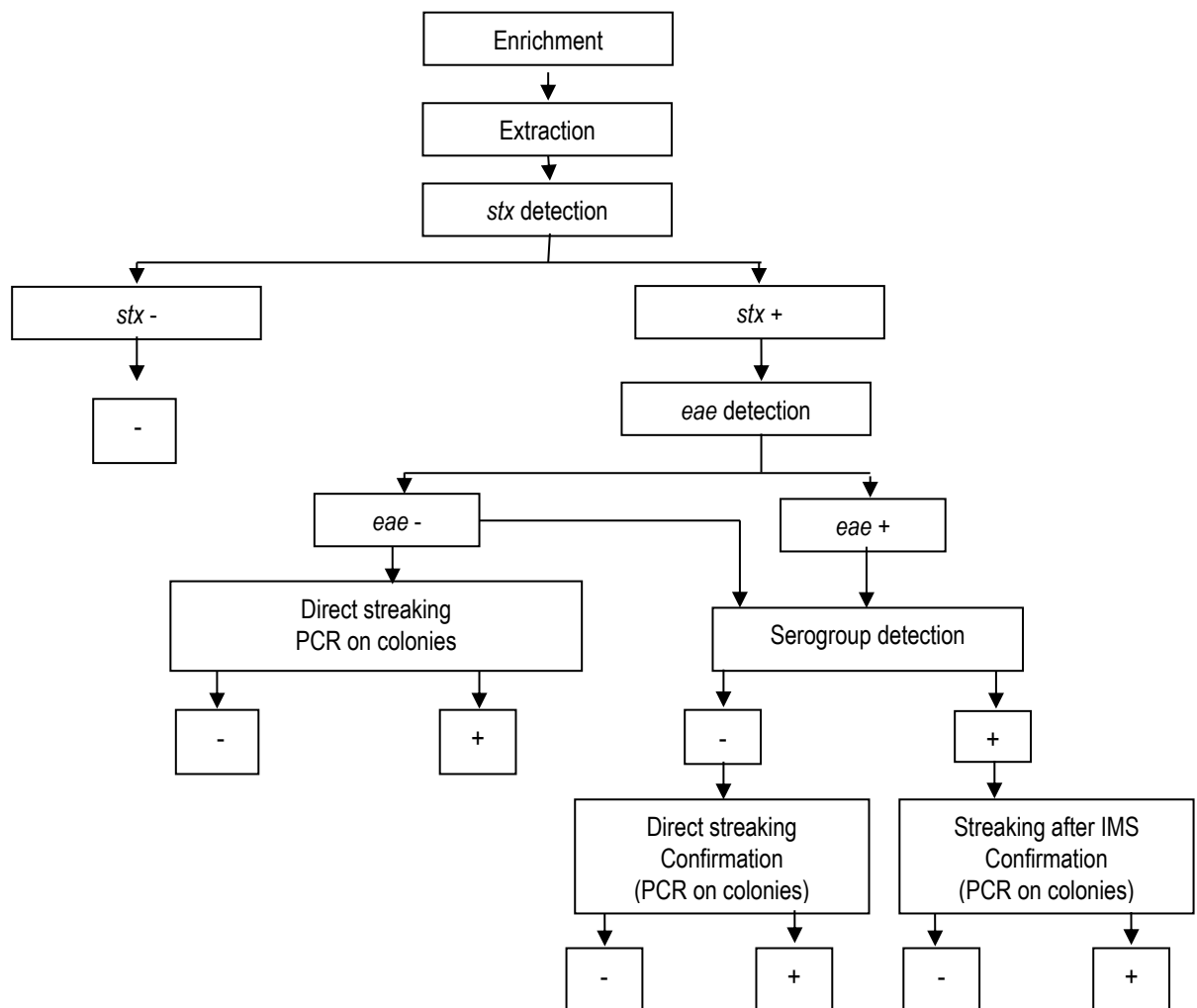
The reference method is the **ADRIA internal method based on ISO/TS 13136 (November 2012)**: Microbiology of food and animal feed - Real-Time Polymerase Chain Reaction (PCR) based method for the detection of food-borne pathogens. Horizontal method for the detection of Shiga-toxin producing (STEC) and the determination of O26, O103, O111; O145 and O157 serogroups (See **Appendix 2**). The sample size of 25 g test portions (meat and vegetables) or 375 g test portions (meat) was used for both ISO and alternative methods.

In order to allow the direct comparison between the alternative and the reference method, independent interpretation based on *stx* only or *stx* & *eae* was made.

The decision tree for the reference method was the following (See Figure 1):

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Figure 1 - decision tree for the reference method



As this method is not easily transferable to other laboratories, for the purpose of the ILS study, two options were proposed to the participants:

- **OPTION 1:** ISO/TS 13136 using their own internal ISO/TS 13136 method
- **OPTION 2:** ISO/TS 13136 using ADRIA internal method up to the extraction protocol and shipment of the extract to ADRIA to conduct PCR analyses.

The flow diagram of the different option is given in **Appendix 3**.

2.3 Study design

The Method Comparison Study was carried out using 25 or 375 g test portions of sample material, depending on the different protocols.

There is no shared initial (pre)-enrichment step for the reference and the alternative method, different test portions, but coming from the same batch of product (Item), were used for the two methods. All resulting data were treated as unpaired data.

3 METHOD COMPARISON STUDY

The study was carried out on a diversity of samples and strains representative of agri-food products. This does not constitute an exhaustive list of the different matrices included in the scope.

3.1 Sensitivity study

The sensitivity (SE) is the ability of the method to detect the analyte by either the reference or alternative method.

3.1.1 Categories and sample types

A total of 2 categories with two test portions (25 g and 375 g) for raw meat category are included in this validation study. A minimum of 75 items for each category was tested by both the reference method and the alternative method (one kit tested but two interpretations) in the sensitivity study, with a minimum of 45 positive samples per category and per protocol (45 samples positive for *stx* and *eae* including 15 positive samples for *stx* only).

Each category was made of 3 types, with at least 20 items representative for each type.

The categories, the types and the number of samples analyzed are presented in Table 2.

Table 2 - Categories, types and number of samples analysed for both *stx* and *stx* & *eae* detection

Category		Test portion	Type		Number of Samples tested			
					NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (<i>stx</i>)	NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (<i>stx</i> and <i>eae</i>)		
1	Raw meat (except poultry)	25 g	a	Chilled (beef, veal, pork, lamb...) *	25	25		
			b	Frozen beef, veal, pork, lamb...) *	26	26		
			c	Seasoned (beef, veal, pork, lamb...) *	24	24		
		Total			75	75		
		375 g	a	Chilled (beef, veal, pork, lamb...) *	27	27		
			b	Frozen (beef, veal, pork, lamb...) *	25	25		
			c	Seasoned (beef, veal, pork, lamb...) *	29	29		
		Total			81	81		
		2	Produce and fruits	25 g	a	Sprouts	35	35
					b	Leafy greens	25	25
c	Cut vegetables and fruits (fresh and frozen) **				25	25		
Total				85	85			
All samples					241	241		

*: 25% beef, 25% veal, 25% pork, 25% lamb

**: 50% cut vegetables, 50% fruits

241 samples were analysed for both targets (*stx* and *stx* & *eae*) corresponding to the two MDA kits (NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx*) and NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*))

The distribution of positive and negative samples per category and type as well as per test portion and for all tested samples is given in Table 3 for *stx* detection (NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx*)) and in Table 4 for *stx* and *eae* detection (NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*))

**Table 3 – Distribution per tested category, type and protocol for
 NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx*)**

Category		Test portion	Protocol	Type		Positive	Negative	Total
1	Raw meat (except poultry)	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 10 h	a	Chilled (beef, veal, pork, lamb...)	16	9	25
				b	Frozen (beef, veal, pork, lamb...)	16	10	26
				c	Seasoned (beef, veal, pork, lamb...)	16	8	24
				Total		48	27	75
		375 g	+ 1125 ml pre-warmed BPW at 41.5°C 1/4 10 h	a	Chilled (beef, veal, pork, lamb...)	20	7	27
				b	Frozen (beef, veal, pork, lamb...)	18	7	25
				c	Seasoned (beef, veal, pork, lamb...)	18	11	29
				Total		56	25	81
2	Produces and fruits	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 18 h	a	Sprouts	15	20	35
				b	Leafy greens	17	8	25
				c	Cut vegetables and fruits (fresh and frozen)	17	8	25
				Total		49	36	85
				All samples				

**Table 4 - Distribution per tested category and type for
 NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx and eae)**

Category		Test portion	Protocol	Type		Positive	Negative	Total
1	Raw meat (except poultry)	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 10 h	a	Chilled (beef, veal, pork, lamb...)	11	14	25
				b	Frozen (beef, veal, pork, lamb...)	10	16	26
				c	Seasoned (beef, veal, pork, lamb...)	12	12	24
				Total		33	42	75
		375 g	+ 1125 ml pre-warmed BPW at 41.5°C 1/4 10 h	a	Chilled (beef, veal, pork, lamb...)	13	14	27
				b	Frozen (beef, veal, pork, lamb...)	12	13	25
				c	Seasoned (beef, veal, pork, lamb...)	12	17	29
				Total		37	44	81
2	Produce and fruits	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 18 h	a	Sprouts	10	25	35
				b	Leafy greens	10	15	25
				c	Cut vegetables and fruits (fresh and frozen)	12	13	25
				Total		32	53	85
All samples						102	139	241

The distribution of positive samples per target is given per category and test portion and for all tested samples in Table 5 for *stx* detection and in Table 6 for *stx* and *eae* detection.

Table 5 - Distribution of positive samples per target (stx and serogroups), per category, and test portion for **NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx)**

Category		Test portion	Positive								Total positive	Negative
			stx+ & eae+							stx + only		
			O26	O103	O111	O145	O157	Non-Top 5 serogroup	mix			
1	Raw meat (except poultry)	25 g	2	3	2	10	12	0	4	15 (O111 x 2, 13 non-Top 5)	48	27
		375 g	4	5	4	12	11	1	0	19 (O145 x 3, O157 x 1, O26 x 1, O103 x 2, 12 non-Top 5)	56	25
2	Produce and fruits	25 g	7	3	10	7	5	0	0	17 (O103 x 2, O111 x 2, 13 non-Top 5)	49	36
All samples			13	11	16	29	28	1	4	51	153	88

Table 6 - Distribution of positive samples per target (stx and serogroups), per category, and test portion for **NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx and eae)**

Category		Test portion	Positive								Negative
			O26	O103	O111	O145	O157	Non-Top 5 serogroup	mix	Total positive	
1	Raw meat (except poultry)	25 g	2	3	2	10	12	0	4	33	0
		375 g	4	5	4	12	11	1	0	37	44
2	Produce and fruits	25 g	7	3	10	7	5	0	0	32	53
All samples			13	11	16	29	28	1	4	102	97

The meat samples were mainly contaminated with strains belonging to O145 and O157 serogroups, while produce and fruits were mainly contaminated with strains belonging to O26, O111 and O145 serogroups.

3.1.2 Test sample preparation

Some naturally contaminated samples were analysed but artificial contaminations were also done by seeding protocols using strains from appropriate origin (storage for 48 h at 3°C ± 2°C and for 2 weeks minimum at - 20°C). The target inoculation was ≤ 3 CFU/test portion.

The positive samples, naturally and/or artificially contaminated are presented in **Appendix 4**.

The same strain was not used to inoculate more than 6 positive samples.

The number of samples inoculated, the number of samples contaminated with only naturally present strains and the repartition of the positive samples per inoculation protocol are given in Tables 7 and 8.

Table 7 - Repartition of the positive samples per inoculation level
NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx)

	Naturally contaminated	Seeding protocol			Total
		≤ 3 CFU	3 < x ≤ 10 CFU	> 10 CFU	
Number of samples	9	111	30	3	153
%	5.9%	72.5%	19.6%	2.0%	100.0%

Table 8 - Repartition of the positive samples per inoculation level
NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx and eae)

	Naturally contaminated	Seeding protocol		Total
		≤ 3 CFU	3 < x ≤ 10 CFU	
Number of samples	6	78	18	102
%	5.9%	76.5%	17.6%	100.0%

5.9 % of the samples were naturally contaminated.

The list of samples contaminated with naturally present strain is given in Table 9.
 For some samples, two strains were isolated from the enrichment broth.
 Note that the strains isolated from the alternative enriched samples were also confirmed using the PCR tests of the ISO/TS 13136 method.

Table 9 - Naturally contaminated samples

Category	Test portion	Sample N°	Product	Strains isolated	
				stx detection	stx & eae detection
Raw meat	25 g	5507	Fresh ground beef	O157/O26	O157/O26
		5508	Fresh ground beef	O157/O26	O157/O26
		5509	Fresh ground beef	O157/O26	O157/O26
		5510	Fresh ground beef	O157/O26	O157/O26
		415	Fresh veal meat	O103	O103
		868	Frozen lamb meat	stx+ only (non-Top 5)	/
		870	Seasoned veal meat	stx+ only (non-Top 5)	/
	375 g	2424	Fresh ground veal meat	O103	O103
		2880	Fresh ground veal meat	stx+ only (non-Top 5)	/

3.1.3 **Protocols applied during the MCS**

> **Test portion**

The same test portions were used for the reference and the alternative methods (25 g or 375 g depending on the categories tested).

The relative level of detection was determined for the ISO/TS method (25 g versus 375 g) in order to check if the two tests portions were equivalent with respect to the detection limit. The calculated RLOD value was 0.871 and meet the acceptability limit (AL fixed at 2.5 for an unpaired study design). It was therefore agreed by the MVTC to use 375g test portion for the reference method.

The raw data are given in **Appendix 5**.

> **Matrix control**

During the validation study, the matrix control was applied on the enriched broths for each sample tested in the sensitivity and RLOD parts.

> **Incubation times**

The following incubation times were applied:

Table 10 - Incubation time

Category	Test portion	Incubation time
1- Raw meats (except poultry)	25 g	10 h
	375 g	10 h
2- Fresh produces and fruits	25 g	18 h

> **Confirmation protocols**

The following confirmation protocols were used:

Table 11

Step	Protocol applied	Kit or media used	Samples tested
Enrichment broth testing <i>stx</i> <i>OR</i> <i>stx and eae</i>	Direct streaking (10 µL)	CHROMagar STEC TBX	All samples: positive and negative
	Alternative protocol: Subculture of 0.1 ml enriched sample in 9 ml BPW	CHROMagar STEC TBX and if necessary: CCA and ChromID coli	Positive samples in case of discrepancy between MDA test and direct streaking
Colonies testing Up to 10 colonies for direct streaking procedure Up to 50 colonies for alternative protocol	Without purification step	NEOGEN® Molecular Detection assay 2- STEC Gene Screen (<i>stx</i> and <i>eae</i>)	Typical colonies from CHROMagar STEC and if non-typical colonies or no colony present on first choice use colonies from TBX (or CCA or ChromID coli if necessary)

During the validation study:

- In case of discrepancy between the MDA test result and the different confirmation procedures described above, for the artificially contaminated samples, an IMS step was performed before streaking onto selective agar plates.
- The colonies isolated from naturally contaminated samples confirmed as positive using the protocol of the alternative method were tested by the PCR tests of the ISO/TS 13136.
- For the negative meat samples, the enriched samples were incubated until 18 h and tested again in order to have the same incubation time as the ISO/TS 13136 method.

> **Enrichment broth storage**

The enrichment broths and the lysates of the alternative method from positive and discordant samples were stored for 72h at 5°C ± 3°C and tested again (Heat treatment 5 min at 100°C for the stored lysate, MDA and confirmatory tests).

3.1.4 Sensitivity study results

All raw data per category are given in **Appendix 6**. Sample numbers in **bold** indicate artificial inoculation of the sample (see **Appendix 4** for details on artificial inoculation).

Tables 12 and 13 show the summary of results of the reference method and the alternative methods for **all categories**. Note that the interpretation has been done for all samples by adding the results of both test portions (25 g and 375 g) for the raw meat category.

Table 12 – Summary of sensitivity study results – All categories
NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx)

Response	Reference method positive (R+)	Reference method negative (R-)
Alternative method positive (A+)	Positive agreement (R+/A+) PA = 81	Positive deviation (R-/A+) PD = 54
Alternative method negative (A-)	Negative deviation (R+/A-) TND = 18 (ND_{FN(alt)} = 0 and PA_{FP(alt)} = 2)	Negative agreement (R-/A-) TNA = 88 (NA_{FN(alt)} = 0 and PD_{FP(alt)} = 12)

Table 13 – Summary of sensitivity study results – All categories
NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx and eae)

Response	Reference method positive (R+)	Reference method negative (R-)
Alternative method positive (A+)	Positive agreement (R+/A+) PA = 53	Positive deviation (R-/A+) PD = 37
Alternative method negative (A-)	Negative deviation (R+/A-) TND = 12 (ND_{FN(alt)} = 0 and PA_{FP(alt)} = 0)	Negative agreement (R-/A-) TNA = 139 (NA_{FN(alt)} = 0 and PD_{FP(alt)} = 11)

With $TNA = NA + NA_{FN(alt)} + PD_{FP(alt)}$

$TND = ND + ND_{FN(alt)} + PA_{FP(alt)}$

Combining all the products, 13 and 11 positive presumptive non-confirmed ($PD_{FP(alt)}$ and $PA_{FP(alt)}$) samples were observed respectively for *stx* and *stx/eae* detection. The products concerned were mainly sprouted seeds. For these products, the background microflora observed on the selective agar plates was relatively high, making the recovery of the strain on the selective agar plates particularly difficult.

3.1.5 Sensitivity study calculations

The sensitivity study parameters as specified in Table 14 were calculated for all samples, and the overviews are given in Table 15 and 16.

Table 14 – Formula to calculate the sensitivity parameters

		NEOGEN ® Molecular Detection Assay 2 - STEC Gene Screen (<i>stx</i>)	NEOGEN ® Molecular Detection Assay 2 - STEC Gene Screen (<i>stx</i> and <i>eae</i>)
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	88.2 %	88.2 %
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	64.7 %	63.7 %
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	70.1 %	79.7 %
False positive ratio for the alternative method (unpaired evaluation)	$FPR = \frac{PA_{FP(alt)} + PD_{FP(alt)}}{TNA} \times 100 \%$	15.9 %	7.9 %
False negative ratio for the alternative method (unpaired evaluation) *	$FNR = \frac{NA_{FN(alt)} + ND_{FN(alt)}}{PA + TND + PD} \times 100 \%$	0.0 %	0.0 %

* For consistency purposes, this formula was converted into a percentage format following agreement with the MVTC.

**Table 15 – Overview calculated sensitivity parameters per category and type -
 NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx)**

Category		Test portion	Protocol	Type		PA	PA FP(alt)	NA	NA FN(alt)	PD	ND	ND FN(alt)	PD FP(alt)	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR %
1	Raw meat (except poultry)	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 10 h	a	Chilled (beef, veal, pork, lamb...)	8	0	9	0	7	1	0	0	1	9	93.8	56.3	68.0	0.0	0.0
				b	Frozen (beef, veal, pork, lamb...)	7	0	10	0	9	0	0	0	10	100.0	43.8	65.4	0.0	0.0	
				c	Seasoned (beef, veal, pork, lamb...)	11	0	8	0	2	3	0	0	3	8	81.3	87.5	79.2	0.0	0.0
				Total		26	0	27	0	18	4	0	0	4	27	91.7	62.5	70.7	0.0	0.0
		375 g	+ 1125 ml pre-warmed BPW at 41.5°C 1/4 10 h	a	Chilled (beef, veal, pork, lamb...)	14	1	5	0	4	1	0	2	2	7	90.0	80.0	77.8	42.9	0.0
				b	Frozen (beef, veal, pork, lamb...)	10	1	7	0	3	4	0	0	5	7	72.2	83.3	68.0	14.3	0.0
				c	Seasoned (beef, veal, pork, lamb...)	13	0	9	0	4	1	0	2	1	11	94.4	77.8	82.8	18.2	0.0
				Total		37	2	21	0	11	6	0	4	8	25	85.7	80.4	76.5	24.0	0.0
2	Produce and fruits	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 18 h	a	Sprouts	4	0	12	0	11	0	0	8	0	20	100.0	26.7	68.6	40.0	0.0
				b	Leafy greens	6	0	8	0	7	4	0	0	4	8	76.5	58.8	56.0	0.0	0.0
				c	Cut vegetables and fruits (fresh and frozen)	8	0	8	0	7	2	0	0	2	8	88.2	58.8	64.0	0.0	0.0
				Total		18	0	28	0	25	6	0	8	6	36	87.8	49.0	63.5	22.2	0.0
		All samples						81	2	76	0	54	17	0	12	18	88	88.2	64.7	70.1

**Table 16 – Overview calculated sensitivity parameters per category and type -
 NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*)**

Category	Test portion	Protocol	Type	PA	PA FP(alt)	NA	NA FN(alt)	PD	ND	ND FN(alt)	PD FP(alt)	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR %
1	Raw meat (except poultry)	25 g + 225 ml pre-warmed BPW at 41.5°C 1/10 10 h	a Chilled (beef, veal, pork, lamb...)	7	0	14	0	3	1	0	0	1	14	90.9	72.7	84.0	0.0	0.0
			b Frozen (beef, veal, pork, lamb...)	4	0	16	0	6	0	0	0	0	16	100.0	40.0	76.9	0.0	0.0
			c Seasoned (beef, veal, pork, lamb...)	9	0	12	0	1	2	0	0	2	12	83.3	91.7	87.5	0.0	0.0
			Total	20	0	42	0	10	3	0	0	3	42	90.9	69.7	82.7	0.0	0.0
	375 g	+ 1125 ml pre-warmed BPW at 41.5°C 1/4 10 h	a Chilled (beef, veal, pork, lamb...)	8	0	11	0	5	0	0	3	0	14	100.0	61.5	81.5	21.4	0.0
			b Frozen (beef, veal, pork, lamb...)	7	0	13	0	2	3	0	0	3	13	75.0	83.3	80.0	0.0	0.0
			c Seasoned (beef, veal, pork, lamb...)	9	0	15	0	2	1	0	2	1	17	91.7	83.3	89.7	11.8	0.0
			Total	24	0	39	0	9	4	0	5	4	44	89.2	75.7	84.0	11.4	0.0
2	Produce and fruits	25 g + 225 ml pre-warmed BPW at 41.5°C 1/10 18 h	a Sprouts	1	0	19	0	9	0	0	6	0	25	100.0	10.0	74.3	24.0	0.0
			b Leafy greens	2	0	15	0	5	3	0	0	3	15	70.0	50.0	68.0	0.0	0.0
			c Cut vegetables and fruits (fresh and frozen)	6	0	13	0	4	2	0	0	2	13	83.3	66.7	76.0	0.0	0.0
			Total	9	0	47	0	18	5	0	6	5	53	84.4	43.8	72.9	11.3	0.0
			All samples	53	0	128	0	37	12	0	11	12	139	88.2	63.7	79.7	7.9	0.0

3.1.6 **Discordant results**

> **Negative deviations**

Negative deviations are listed in Table 17.

For the meat category (25 g), 4 negative deviations were observed for *stx* detection and 3 for *stx* & *eae* detection. For 375 g test portion, 8 and 4 negative deviations were respectively observed for *stx*, and *stx* & *eae* detection.

For produces and fruits, 6 and 5 negative deviations were respectively observed for *stx* and *stx* & *eae* detection

For all these samples, the confirmation results were negative whatever the protocol applied.

Note that for one sample (2026: fresh lamb meat, 375 g test portion), incubation of the BPW until 18 h (incubation time equivalent to the reference method) allowed to confirm the presence of *Escherichia coli* (*stx*+ and *eae*+) in the enriched sample while all confirmation protocols applied after 10 h incubation did not allow to confirm the presence of *E. coli*. The MDA test was positive on this enrichment broth for this sample for both *stx* and *stx* & *eae* detection but was not confirmed using the protocols of the NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen. It was considered as a PA_{FP(alt)} sample as the protocol which allowed to confirm the presence of *E. coli* (18 hours incubation time) was not part of the alternative method.

> **Positive deviations**

Positive deviations are listed in Table 18.

For the meat category (25 g test portion), 18 positive deviations were observed for *stx* detection and 10 for *stx* & *eae* detection. For 375 g test portion, 11 and 9 positive deviations were observed for *stx*, and *stx* & *eae* detection.

For produces and fruits, 25 and 18 positive deviations were observed respectively for *stx*, and *stx* & *eae* detection.

These results show clearly better performances for the NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen.

> **Samples in negative agreement confirmed positive**

During the validation, the enrichment broth from negative samples were re-incubated until 18 h at 41.5°C for the meat category (25 g and 375 g test portions) in order to have the same incubation time as for the reference method. None of the samples in negative agreement was confirmed positive using this protocol.



Table 17 - Negative deviations

Sample N°	Product	Artificial contaminations					Reference method: ISO/TS 13136* Result			Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC										Category	Test portion	Type
		Strain inoculated				Inoculation level CFU/sample				Final result LAMP test		Final result all confirmatory tests		Final result NEOGEN MDA2 STEC		Agreement		Re-incubation enriched samples until 18 h				
		Reference	stx1	stx2	eae		Global result stx	Global result stx & eae	Serogroup	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae			
5307	Marinated pork meat	<i>E. coli</i> O157:H7 Ad582	+	+	+	3.0	+	+	O157	-	-	-	-	-	-	ND	ND	-	-	1	25 g	c
5309	Marinated veal meat	<i>E. coli</i> O103 Ad3113	+	-	+	2.8	+	+	O103	-	-	-	-	-	-	ND	ND	-	-	1	25 g	c
402	Seasoned pork meat	<i>E. coli</i> O111:H8- Ad1774	-	+	-	1.8	+	-	O111	-	-	-	-	-	-	ND	NA	-	-	1	25 g	c
415	Fresh veal meat	/	/	/	/	/	+	+	O103	-	-	-	-	-	-	ND	ND	-	-	1	25 g	a
1320	Frozen beef meat	<i>E. coli</i> O26:H11 14-53	+	-	+	1.0	+	+	O26	-	-	-	-	-	-	ND	ND	-	-	1	375 g	b
1322	Frozen veal meat	<i>E. coli</i> O157:H7 Ad976	+	+	+	1.2	+	+	O157	-	-	-	-	-	-	ND	ND	-	-	1	375 g	b
1324	Frozen marinated pork meat	<i>E. coli</i> O145:H28 092-4	-	+	+	1.8	+	+	O145	-	-	-	-	-	-	ND	ND	-	-	1	375 g	b
1842	Frozen veal meat	<i>E. coli</i> Ad3103	+	+	-	2.2	+	-	-	-	-	-	-	-	-	ND	NA	-	-	1	375 g	b
1847	Frozen veal meat	/	/	/	/	/	+	-	/	+	-	-	-	-	-	PA _{FP(alt)}	NA	-	-	1	375 g	b
2016	Marinated beef meat	<i>E. coli</i> Ad3105	+	-	-	2.0	+	-	/	-	-	-	-	-	-	ND	NA	-	-	1	375 g	c
2024	Fresh pork meat	<i>E. coli</i> Ad3108	+	-	-	3.2	+	-	/	-	-	-	-	-	-	ND	NA	-	-	1	375 g	a
2026	Fresh lamb meat	<i>E. coli</i> Ad3105	+	-	-	3.4	+	-	/	+	+	-	-	-	-	PA _{FP(alt)}	PD _{FP(alt)}	+	+	1	375 g	a
2408	Marinated veal meat	<i>E. coli</i> Ad3188	+	+	-	3.2	+	+	-	+	-	+	-	+	-	PA	ND	+	-	1	375 g	c
556	Leafy green (kale cabbage)	<i>E. coli</i> O145 Ad2310	+	+	+	2.4	+	+	O145	-	-	-	-	-	-	ND	ND	NT	NT	2	25 g	b
559	Leafy greens (fresh spinach leaves)	<i>E. coli</i> O111:H8- Ad1774	-	+	-	1.4	+	-	O111	-	-	-	-	-	-	ND	NA	NT	NT	2	25 g	b
742	Leafy greens (celery branch)	<i>E. coli</i> O26:H11 Ad1507	+	+	+	1.2	+	+	O26	-	-	-	-	-	-	ND	ND	NT	NT	2	25 g	b
744	Leafy greens (corn salad)	<i>E. coli</i> O103 Ad1772	+	+	+	2.6	+	+	O103	-	-	-	-	-	-	ND	ND	NT	NT	2	25 g	b
748	Fresh cut fruits	<i>E. coli</i> O103 Ad1772	+	+	+	2.6	+	+	O103	-	-	-	-	-	-	ND	ND	NT	NT	2	25 g	c
1237	Frozen sliced onions	<i>E. coli</i> O157:H7 Ad582	+	+	+	3.6	+	+	O157	-	-	-	-	-	-	ND	ND	NT	NT	2	25 g	c

NT: not tested as the incubation time of the alternative method for the produces and fruits category is 18 h

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)



Table 18 - Positive deviations

Sample N°	Product	Artificial contaminations					Reference method: ISO/TS 13136 ♦			Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC										Category	Test portion	Type
		Strain inoculated				Inoculation level CFU/sample				Result			Final result LAMP test		Final result all confirmatory tests		Final result NEOGEN MDA2 STEC		Agreement			
		Reference	stx1	stx2	eae		Global result stx	Global result stx & eae	Serogroup				stx	stx & eae	stx	stx & eae	stx	stx & eae	stx			
5301	Fresh veal meat	<i>E. coli</i> O103 Ad3113	+	-	+	2.8	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	25 g	a
5304	Fresh lamb meat	<i>E. coli</i> O157:H7 Ad571	+	+	+	3.4	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	25 g	a
5305	Fresh lamb meat	<i>E. coli</i> O157:H7 Ad582	+	+	+	3.0	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	25 g	a
5308	Marinated veal meat	<i>E. coli</i> O26 Ad3109	+	-	+	1.8	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	25 g	c
5489	Frozen beef trim	<i>E. coli</i> O145:H28 2305-1	+	+	+	2.0	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	25 g	b
5491	Frozen veal meat	<i>E. coli</i> O145:H28 2305-1	+	+	+	2.0	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	25 g	b
5493	Frozen veal meat	<i>E. coli</i> O157:H7 Ad924	+	+	+	3.0	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	25 g	b
5496	Frozen pork meat	<i>E. coli</i> O145:H28 1867-177	+	+	+	2.2	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	25 g	b
5497	Frozen lamb meat	<i>E. coli</i> O157:H7 803	+	+	+	1.8	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	25 g	b
5498	Frozen lamb meat	<i>E. coli</i> O145:H28 1867-177	+	+	+	2.2	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	25 g	b
395	Fresh beef meat	<i>E. coli</i> Ad3103	+	+	-	1.8	-	-	/	+	-	+	-	+	-	PD	NA	/	-	1	25 g	a
397	Fresh pork meat	<i>E. coli</i> O111:H8- Ad1774	-	+	-	1.8	-	-	/	+	-	+	-	+	-	PD	NA	/	-	1	25 g	a
398	Fresh veal meat	<i>E. coli</i> Ad3103	+	+	-	1.8	-	-	/	+	-	+	-	+	-	PD	NA	/	-	1	25 g	a
399	Fresh lamb meat	<i>E. coli</i> Ad3105	+	-	-	2.4	-	-	/	+	-	+	-	+	-	PD	NA	/	-	1	25 g	a
400	Marinated beef meat	<i>E. coli</i> Ad3103	+	+	-	1.8	-	-	/	+	-	+	-	+	-	PD	NA	/	-	1	25 g	c
857	Frozen lamb meat	<i>E. coli</i> Ad3108	+	-	-	1.6	-	-	/	+	-	+	-	+	-	PD	NA	/	-	1	25 g	b
859	Frozen ground beef	<i>E. coli</i> O113:H21 STEC 19-50	-	+	-	2.4	-	-	/	+	-	+	-	+	-	PD	NA	/	-	1	25 g	b
860	Frozen pork meat	<i>E. coli</i> O113:H21 STEC 19-50	-	+	-	2.4	-	-	/	+	-	+	-	+	-	PD	NA	/	-	1	25 g	b
1245	Seasoned lamb meat	<i>E. coli</i> O157:H7 Ad1174	-	+	+	1.6	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	375 g	c
1252	Seasoned pork meat	<i>E. coli</i> O111 Ad3037	+	-	+	0.8	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	375 g	c
1319	Frozen beef meat	<i>E. coli</i> O157:H7 Ad976	+	+	+	1.2	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	375 g	b
1321	Frozen ground veal meat	<i>E. coli</i> O145:H28 092-4	-	+	+	1.8	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	375 g	b
1838	Frozen ground beef meat	<i>E. coli</i> STEC 19-50	-	+	-	1.6	-	-	/	+	-	+	-	+	-	PD	NA	-	-	1	375 g	b
2018	Marinated pork meat	<i>E. coli</i> Ad3105	+	-	-	2.0	-	-	/	+	-	+	-	+	-	PD	NA	+	-	1	375 g	c
2020	Seasoned lamb meat	<i>E. coli</i> Ad3200	+	-	-	3.2	-	-	/	+	-	+	-	+	-	PD	NA	-	-	1	375 g	c
2063	Fresh beef meat	<i>E. coli</i> O26:H11	+	-	+	3.2	-	-	/	+	+	+		+	+	PD	PD	/	/	1	375 g	a
2069	Fresh pork meat	<i>E. coli</i> O111:H8 Ad511	+	+	+	4.8	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	375 g	a
2071	Fresh lamb meat	<i>E. coli</i> O145 1331-100	-	+	+	4.0	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	375 g	a
2072	Fresh lamb meat	<i>E. coli</i> O111:H8 Ad511	+	+	+	4.8	-	-	/	+	+	+	+	+	+	PD	PD	/	/	1	375 g	a
2424	Fresh veal meat	/	/	/	/	/	+	-	O103	+	+	+(*)	+(*) (72h)	+	+	PA	PD	+	+	1	375 g	a
546	Sprouted seeds (baby mungo)	<i>E. coli</i> O145 Ad983	-	+	+	2.2	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	a
549	Sprouted seeds (alfalfa arugula)	<i>E. coli</i> O145 Ad2310	+	+	+	2.4	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	a
552	Leafy green (kale cabbage)	<i>E. coli</i> O111 Ad981	+	-	+	1.6	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	b

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)



Sample N°	Product	Artificial contaminations					Reference method: ISO/TS 13136 ♦			Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC										Category	Test portion	Type
		Strain inoculated				Inoculation level CFU/sample				Result		Final result LAMP test		Final result all confirmatory tests		Final result NEOGEN MDA2 STEC		Agreement				
		Reference	stx1	stx2	eae		Global result stx	Global result stx & eae	Serogroup			stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae			
553	Leafy greens (escarole)	E. coli O111:H8 Ad3021	+	-	+	2.8	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	b
555	Leafy greens (fresh spinach leaves)	E. coli O145 Ad983	-	+	+	2.2	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	b
557	Leafy greens (escarole)	E. coli O145 Ad2310	+	+	+	2.4	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	b
563	Cut mix vegetables ready-to-cook	E. coli O111:H8- Ad1774	-	+	-	1.4	-	-	/	+	-	+	-	+	-	PD	NA	NT	NT	2	25 g	c
564	Cut mango ready-to-eat	E. coli O111 Ad981	+	-	+	1.6	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	c
565	Cut pineapple ready-to-eat	E. coli Ad3200	+	-	-	1.6	-	-	/	+	-	+	-	+	-	PD	NA	NT	NT	2	25 g	c
737	Sprouted seeds (alfalfa leeks)	E. coli O26:H11 Ad1507	+	+	+	1.2	-	-	/	+/-/-	+/-/-	+	+	+	+	PD	PD	NT	NT	2	25 g	a
743	Leafy greens (celery branch)	E. coli O157:H7 Ad3118	+	+	+	3.4	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	b
746	Leafy greens (laitue)	E. coli Ad3200	+	-	-	3.0	-	-	/	+	-	+	-	+	-	PD	NA	NT	NT	2	25 g	b
749	Cut pineapple ready-to-eat	E. coli Ad3030	+	-	-	2.0	-	-	/	+	-	+	-	+	-	PD	NA	NT	NT	2	25 g	c
750	Sprouted seeds (baby mungo)	E. coli Ad3030	+	-	-	2.0	-	-	/	+	-	+	-	+	-	PD	NA	NT	NT	2	25 g	a
753	Fresh cut mushrooms	E. coli O26:H11 Ad1507	+	+	+	1.2	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	c
754	Fresh cut mushrooms	E. coli O103 Ad1772	+	+	+	2.6	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	c
1438	Sprouted seeds (alfalfa, leeks, lentils)	E. coli O111 Ad3037	+	-	+	1.4	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	a
1439	Sprouted seeds (alfalfa)	E. coli O111 Ad3037	+	-	+	1.4	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	a
1440	Sprouted seeds (alfalfa arugula)	E. coli O111 Ad3037	+	-	+	1.4	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	a
1441	Sprouted seeds (alfalfa, radish, fennel)	E. coli Ad3030	+	-	-	5.2	-	-	/	+	-	+	-	+	-	PD	NA	NT	NT	2	25 g	a
1442	Sprouted seeds (alfalfa radish fennel)	E. coli O157:H7 Ad582	+	+	+	2.6	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	a
1443	Sprouted seeds (alfalfa radish fennel)	E. coli O26 Ad1777	-	+	+	1.8	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	a
1447	Sprouted seeds (alfalfa)	E. coli O145 Ad2310	+	+	+	2.6	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	a
1449	Leafy greens (baby leaves)	E. coli Ad3030	+	-	-	2.8	-	-	/	+	-	+	-	+	-	PD	NA	NT	NT	2	25 g	b
2419	Baby carrots	E. coli O26 Ad3056	+	+	+	3.2	-	-	/	+	+	+	+	+	+	PD	PD	NT	NT	2	25 g	c

NT: not tested as the incubation time of the alternative method for the produces and fruits category is 18 h

The analyses of discordant results according to the ISO 16140-2 for an unpaired study is the following (See Tables 19 and 20).

**Table 19 - Interpretation of the sensitivity study results -
 NEOGEN[®] Molecular Detection Assay 2 - STEC Gene Screen (stx)**

Category		Test portion	Protocol	Type		N+	TND	PD	TND-PD	AL	
1	Raw meat (except poultry)	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 10 h	a	Chilled (beef, veal, pork, lamb...)	16	1	7	-6		
				b	Frozen (beef, veal, pork, lamb...)	16	0	9	-9		
				c	Seasoned (beef, veal, pork, lamb...)	16	3	2	1		
				Total		48	4	18	-14		3
		375 g	+ 1125 ml pre-warmed BPW at 41.5°C 1/4 10h	a	Chilled (beef, veal, pork, lamb...)	20	2	4	-2		
				b	Frozen (beef, veal, pork, lamb...)	18	5	3	2		
				c	Seasoned (beef, veal, pork, lamb...)	18	1	4	-3		
				Total		56	8	11	-3		3
2	Produce and fruits	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 18 h	a	Sprouts	15	0	11	-11		
				b	Leafy greens	17	4	7	-3		
				c	Cut vegetables and fruits (fresh and frozen)	17	2	7	-5		
				Total		49	6	25	-19		3
				All samples					153		18

** PA_{FP(alt)} not included

**Table 20 - Interpretation of the sensitivity study results -
 NEOGEN[®] Molecular Detection Assay 2 - STEC Gene Screen (stx and eae)**

Category		Test portion	Protocol	Type		N+	TND	PD	TND-PD	AL	
1	Raw meat (except poultry)	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 10 h	a	Chilled (beef, veal, pork, lamb...)	11	1	3	-2		
				b	Frozen (beef, veal, pork, lamb...)	10	0	6	-6		
				c	Seasoned (beef, veal, pork, lamb...)	12	2	1	1		
				Total		33	3	10	-7		3
		375 g	+ 1125 ml pre-warmed BPW at 41.5°C 1/4 10h	a	Chilled (beef, veal, pork, lamb...)	13	0	5	-5		
				b	Frozen (beef, veal, pork, lamb...)	12	3	2	1		
				c	Seasoned (beef, veal, pork, lamb...)	12	1	2	-1		
				Total		37	4	9	-5		3
2	Produce and fruits	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 18 h	a	Sprouts	10	0	9	-9		
				b	Leafy greens	10	3	5	-2		
				c	Cut vegetables and fruits (fresh and frozen)	12	2	4	-2		
				Total		32	5	18	-13		3
				All samples		102	12	37	-25		5

** PA_{FP(alt)} not included

The observed values for ND - PD for the individual categories whatever the test portion (25 g or 375 g) and for all tested samples combined meet the acceptability limits (observed values $\leq$ AL).

3.1.7 *Enrichment broth and lysates storage at 5 ± 3 °C for 72 h*

Enrichment broth BPW and lysates storage was done at $5^{\circ}\text{C} \pm 3^{\circ}\text{C}$ for 72 h.

All positive samples were tested again after enrichment broth storage. 5 changes were observed for *stx* detection and 3 for *stx* and *eae* detection. The following changes were observed (See Tables 21 and 22).

**Table 21 - Observed changes in results before
and after storage of the enrichment broth -
NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx*)**

Category	Test portion	Sample N°	Product	Agreement Before storage	Agreement After BPW storage	Agreement After Lysate storage
Raw meat	375 g	1324	Frozen marinated pork meat	ND	PA	PA
		1838	Frozen ground beef meat	PD	PD _{FP(alt)}	PD _{FP(alt)}
		1839	Frozen ground beef meat	PA	PA _{FP(alt)}	PA _{FP(alt)}
		2016	Marinated beef meat	ND	PA	ND
		2024	Fresh pork meat	ND	PA	PA
Produce and fruits	25 g	737	Sprouted seeds	PD	NA	NA

**Table 22 - Observed changes in results before
and after storage of the enrichment broth -
NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*)**

Category	Test portion	Sample N°	Product	Agreement Before storage	Agreement After BPW storage	Agreement After Lysate storage
Raw meat	375 g	1324	Frozen marinated pork meat	ND	PA	PA
Produce and fruits	25 g	737	Sprouted seeds	PD	NA	NA

Two samples (1838 and 1839) positives for *stx* only, showed difficulties to be confirmed after storage, leading to two additional PD_{FP(alt)} or PA_{FP(alt)} results. The analyses of discordant results become (See Tables 23 and 24).

Table 23 - Interpretation of the sensitivity study results
after storage of the enrichment broth at 5°C ± 3°C -
NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (stx)

After BPW storage

Category		Test portion	Protocol	Type		N+	TND	PD	TND-PD	AL	
1	Raw meat (except poultry)	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 10 h	a	Chilled (beef, veal, pork, lamb...)	16	1	7	-6		
				b	Frozen (beef, veal, pork, lamb...)	16	0	9	-9		
				c	Seasoned (beef, veal, pork, lamb...)	16	3	2	1		
				Total		48	4	18	-14		3
		375 g	+ 1125 ml pre-warmed BPW at 41.5°C 1/4 10h	a	Chilled (beef, veal, pork, lamb...)	20	1	4	-3		
				b	Frozen (beef, veal, pork, lamb...)	17	5	2	3		
				c	Seasoned (beef, veal, pork, lamb...)	18	0	4	-4		
				Total		55	6	10	-4		3
2	Produce s and fruits	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 18 h	a	Sprouts	14	0	10	-10		
				b	Leafy greens	17	4	7	-3		
				c	Cut vegetables and fruits (fresh and frozen)	17	2	7	-5		
				Total		48	6	24	-18		3
				All samples		151	16	52	-36		5

After Lysate storage

Category		Test portion	Protocol	Type		N+	TND	PD	TND-PD	AL
1	Raw meat (except poultry)	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 10 h	a	Chilled (beef, veal, pork, lamb...)	16	1	7	-6	
				b	Frozen (beef, veal, pork, lamb...)	16	0	9	-9	
				c	Seasoned (beef, veal, pork, lamb...)	16	3	2	1	
				Total		48	4	18	-14	
		375 g	+ 1125 ml pre-warmed BPW at 41.5°C 1/4 10h	a	Chilled (beef, veal, pork, lamb...)	20	1	4	-3	
				b	Frozen (beef, veal, pork, lamb...)	17	5	2	3	
				c	Seasoned (beef, veal, pork, lamb...)	18	1	4	-3	
				Total		55	7	10	-3	
2	Produce and fruits	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 18 h	a	Sprouts	14	0	10	-10	
				b	Leafy greens	17	4	7	-3	
				c	Cut vegetables and fruits (fresh and frozen)	17	2	7	-5	
				Total		48	6	24	-18	
				All samples						151

Table 24 - Interpretation of the sensitivity study results
after storage of the enrichment broth at 5°C ± 3°C -
NEOGEN[®] Molecular Detection Assay 2 - STEC Gene Screen (stx and eae)

After BPW storage

Category		Test portion	Protocol	Type		N+	TND	PD	TND-PD	AL	
1	Raw meat (except poultry)	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 10 h	a	Chilled (beef, veal, pork, lamb...)	11	1	3	-2		
				b	Frozen (beef, veal, pork, lamb...)	10	0	6	-6		
				c	Seasoned (beef, veal, pork, lamb...)	12	2	1	1		
				Total		33	3	10	-7		3
		375 g	+ 1125 ml pre-warmed BPW at 41.5°C 1/4 10h	a	Chilled (beef, veal, pork, lamb...)	13	0	5	-5		
				b	Frozen (beef, veal, pork, lamb...)	12	2	2	0		
				c	Seasoned (beef, veal, pork, lamb...)	12	1	2	-1		
				Total		37	3	9	-6		3
2	Produces and fruits	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 18 h	a	Sprouts	9	0	8	-8		
				b	Leafy greens	10	3	5	-2		
				c	Cut vegetables and fruits (fresh and frozen)	12	2	4	-2		
				Total		31	5	17	-12		3
				All samples					101		11

After Lysate storage

Category		Test portion	Protocol	Type		N+	TND	PD	TND-PD	AL	
1	Raw meat (except poultry)	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 10 h	a	Chilled (beef, veal, pork, lamb...)	11	1	3	-2		
				b	Frozen (beef, veal, pork, lamb...)	10	0	6	-6		
				c	Seasoned (beef, veal, pork, lamb...)	12	2	1	1		
				Total		33	3	10	-7		3
		375 g	+ 1125 ml pre-warmed BPW at 41.5°C 1/4 10h	a	Chilled (beef, veal, pork, lamb...)	13	0	5	-5		
				b	Frozen (beef, veal, pork, lamb...)	12	2	2	0		
				c	Seasoned (beef, veal, pork, lamb...)	12	1	2	-1		
				Total		37	3	9	-6		3
2	Produces and fruits	25 g	+ 225 ml pre-warmed BPW at 41.5°C 1/10 18 h	a	Sprouts	9	0	8	-8		
				b	Leafy greens	10	3	5	-2		
				c	Cut vegetables and fruits (fresh and frozen)	12	2	4	-2		
				Total		31	5	17	-12		3
				All samples					101		11

The observed values for TND - PD for the individual categories whatever the test portion (25 g or 375 g) and for all tested samples combined meet the acceptability limits (observed values ≤ AL).

3.1.8 LAMP tests inhibition

The matrix control was applied for each sample tested in the sensitivity part. Only one matrix control inhibition was obtained, it concerns sample N° 406 (Ground beef meat with onions - 25 g test portion) tested after 72 h storage of the enriched BPW. The MDA test gave a positive result for this sample. The lysate was tested a second time, and a positive result was observed for both MDA and matrix control.

3.1.9 Confirmation

Three protocols were applied during the validation, the second and third ones in case of discrepancy between the LAMP test and the direct streaking protocol:

- Direct streaking onto selective agar plates:
- Alternative protocol: subculture in BPW before streaking onto selective agar plates
- IMS before streaking onto selective agar plates

The number of samples confirmed by direct streaking and the number of samples confirmed using the additional protocols are given in Table 27 per category and test portion.

79.6 and 77.5 % of the samples were confirmed using the direct streaking protocol respectively for *stx* or *stx* & *eae* targets. Combining all the confirmation protocols used during this study, 90.3% of the positive LAMP *stx* and 88.7 % of the positive LAMP *stx* and *eae* tests were confirmed.



Table 25 – Number of samples confirmed per protocol

	stx						Without storage		With and without storage	
	Raw meat		Raw meat		Vegetables		Total	Percentage	Total	Percentage
	25 g		375 g		25 g					
	Before storage	After storage	Before storage	After storage	Before storage	After storage				
Number of positive MDA tests	44	44	54	57	51	49	149	/	299	/
Number of samples confirmed by direct streaking	40	43	42	45	35	33	117	78.5%	238	79.6%
Number of samples confirmed by the alternative protocol	4	1	1	1	5	6	10	6.7%	18	6.0%
Number of samples confirmed using IMS	0	0	2	3	3	3	5	3.4%	11	3.7%
Number of samples confirmed after storage	0	/	3	/	0	/	3	2.0%	3	1.0%
Number of samples confirmed	44	44	48	49	43	42	135	90.6%	270	90.3%
Number of PPNC samples	0	0	6	8	8	7	14	9.4%	29	9.7%

	stx & eae						Without storage		With and without storage	
	Raw meat		Raw meat		Vegetables		Total	Percentage	Total	Percentage
	25 g		375 g		25 g					
	Before storage	After storage	Before storage	After storage	Before storage	After storage				
Number of positive MDA tests	32	30	38	38	33	31	103	/	202	/
Number of samples confirmed by direct streaking	30	30	28	32	19	18	77	74.8%	157	77.7%
Number of samples confirmed by the alternative protocol	0	0	0	0	4	5	4	3.9%	9	4.5%
Number of samples confirmed using IMS	0	0	2	2	4	3	6	5.8%	11	5.4%
Number of samples confirmed after storage	0	/	3	/	0	/	3	2.9%	3	1.5%
Number of samples confirmed	30	30	33	34	27	26	90	87.4%	180	89.1%
Number of PPNC samples	2	0	5	4	6	5	13	12.6%	22	10.9%

3.2 Relative level of detection

The relative level of detection is the level of detection at $P = 0.50$ (LOD_{50}) of the alternative (proprietary) method divided by the level of detection at $P = 0.50$ (LOD_{50}) of the reference method.

The RLOD is defined as the ratio of the alternative and reference methods:

$$RLOD = \frac{LOD_{Alt.}}{LOD_{Ref.}}$$

3.2.1 Categories, sample types and strains

Four matrix/strain pairs were tested, in order to cover the 2 protocols available as well as the different genes targeted by the alternative method (See Table 26).

Table 26 - List of selected types and strains per category, as tested within the relative level of detection study

Category		Matrix	Test portion	Strain	Origin	Storage conditions before analysis	Protocol and incubation time
1	Raw meats (except poultry)	Chilled pork meat	25 g	<i>E. coli</i> O145:H28 092-4 (stx1+, stx2+, eae+)	Meat product	48 h at 3°C ± 2°C	Pre-warmed BPW (41.5°C) 25 g + 225 ml 10- 18 h at 41.5°C
		Frozen raw ground beef	375 g	<i>E. coli</i> O157:H7 Ad683 (stx1-, stx2+, eae+)	Beef balls	2 weeks at -20°C	Pre-warmed BPW (41.5°C) 375 g + 1125 ml 10 - 18 h at 41.5°C
2	Fresh produces and fruits	Cut vegetables	25 g	<i>E. coli</i> O103 Ad3169 (stx1+, stx2-, eae+)	Dairy industry environment	48 h at 3°C ± 2°C	Pre-warmed BPW (41.5°C) 25 g + 225 ml 18 - 24 h at 41.5°C
		Tomatoes	25 g	<i>E. coli</i> Ad3200 Non-Top 5 (stx1+, stx2-, eae-)	Slaughterhouse environment	48 h at 3°C ± 2°C	Pre-warmed BPW (41.5°C) 25 g + 225 ml 18 - 24 h at 41.5°C

3.2.2 Test sample preparations

Three levels of artificial contamination were prepared for each type:

- Negative control level: one non-inoculated in order to get 5 test portions,
- Low level: one inoculated between 0,6 and 4,3 CFU/sample in order to get 20 test portions providing fractional recovery,
- Higher level: one inoculated between 2.7 and 7.0 CFU/sample in order to get 5 test portions contaminated at a higher level.

Test portions were individually inoculated and kept at an appropriate time/temperature for stabilization before actual testing (see Table 30).

After inoculation, the matrices were stored as described.

3.2.3 RLOD study results

The tabulated raw data on the RLOD are given in **Appendix 7**.

For pork meat inoculated with *E. coli* O145, the RLOD was tested three times, and the following results were observed (See Table 27):

Table 27 – Results obtained for the pork meat

Data set	Inoculation level	Number of positive samples		RLOD
		Reference method	Alternative method	
1	0.9	0/20	12/20	Calculation not possible
	2.7	0/5	5/5	
2	4.3	5/20	20/20	Calculation not possible
	7.0	2/5	5/5	
3	2.4	3/20	13/20	Calculation possible
	9.2	5/5	5/5	

For the first assay, the inoculation levels correspond to the usual levels which allows to obtain fractional positive results, it was the case for the alternative method, but all the inoculated samples gave negative results with the ISO/TS 13136 method. The test was repeated with higher inoculation levels and this time the required number of positive results, according to the ISO 16140-2 (216) standard, was observed for the ISO/TS 13136 method but as all the samples gave positive results for the MDA methods, the calculation was still impossible. The challenge for this matrix/strain pair is to obtain between 5 and 15 positive results for the ISO/TS method and less than 20 positive samples with the MDA method as it seems that the performances of both methods are completely different. A third test was performed in order to obtain the required number of positive samples for both methods to determine the relative level of detection (RLOD).

The RLOD calculations were performed using the Excel spreadsheet available at <http://standards.iso.org/iso/16140> - RLOD version 4 (2024-01-10). The available RLOD are given Table 28.

Table 28 – Presentation of RLOD before and after confirmation of the alternative method results

Category	Test portion	Matrix / strain	AL	RLOD [95% confidence limit]	
				stx	stx & eae
1	25 g	Chilled pork meat - <i>E. coli</i> O145:H28 092-4	2.5	0.3	0.3
2	375 g	Frozen ground beef - <i>E. coli</i> O157:H7 Ad683		1.2	1.2
3	25 g	Cut vegetables - <i>E. coli</i> O103 Ad3169		0.6	0.6
4	25 g	Tomatoes - <i>E. coli</i> O113:H21 19-50		0.7	/
Combined				0.7	0.7

3.2.4 Conclusion

The RLOD values (using the confirmed alternative method results) meet the acceptability limit, which is 2.5 for unpaired studies, for all the matrices tested.

3.2.5 LOD₅₀ results

The LOD₅₀ calculations were done using the Excel spreadsheet available at <http://standards.iso.org/iso/16140> POD-LOD calculation program - version 12, 2024-03-05. The tests are given in Table 29.

Table 29 - LOD₅₀ results

Category	Test portion	(matrix/strain) pair	Level of detection at 50% (CFU / test portion)		
			Reference method	Alternative method <i>stx</i>	Alternative method <i>stx & eae</i>
1	25 g	Chilled pork meat - <i>E. coli</i> O145:H28 092-4	5.4 [2.7; 10.9]	1.5 [0.9; 2.6]	1.5 [0.9; 2.6]
2	375 g	Frozen ground beef - <i>E. coli</i> O157:H7 Ad683	0.6 [0.4; 1.1]	0.8 [0.5; 1.4]	0.8 [0.5; 1.4]
3	25 g	Cut vegetables - <i>E. coli</i> O103 Ad3169	2.0 [1.0; 3.7]	0.9 [0.5; 1.6]	0.9 [0.5; 1.6]
4	25 g	Tomatoes - <i>E. coli</i> O113:H21 19-50	0.6 [0.3; 1.1]	0.3 [0.2; 0.6]	/
Combined results			1.6 [1.2; 2.2]	0.9 [0.6; 1.2]	1.1 [0.8; 1.5]

The LOD values varies from 0.6 to 5.4 CFU/test portion for the reference method and from 0.3 to 1.5 CFU/ test portion for the alternative method.

3.3 Inclusivity / exclusivity

The inclusivity is the ability of the alternative method to detect the target analyte from a wide range of strains. The exclusivity is the lack of interference from a relevant range of non-target strains of the alternative method.

3.3.1 Protocols

> Inclusivity

E. coli strain cultures were performed in BHI medium at 37°C. Dilutions were done in order to inoculate 10 - 100 cells/225 mL of pre-warmed BPW. The broth was incubated for 10 h at 41.5°C. The alternative method and the confirmatory tests were then performed.

As the scope of the validation is Shiga-toxin-producing *Escherichia coli* (STEC), 62 strains covering the following targets: *stx*+, *eae*+, serogroup + (O26, O103, O111, O145, O157) were tested. The repartition was the following (See Table 30).

Table 30 - Repartition of the strains per serogroup

Number of strains tested							
Genes	O26	O103	O111	O145	O157	Other serogroup (≠ Top 5)	Total
<i>stx</i> +, <i>eae</i> -	0	2	1	0	0	8	0110000
<i>stx</i> +, <i>eae</i> +	10	10	10	10	10	1	51110000
Total							62

> Exclusivity

The non-target strains (30) were grown in BHI medium. Dilutions were done in order to inoculate 10⁵ cells/ml of BPW. The broths were incubated for 24 h at 37°C. The alternative protocol was then performed.

3.3.2 Results

Raw data are given in **Appendix 8**.

> Inclusivity

A total of 62 strains were tested for **inclusivity**. All these strains showed the expected positive result.

> Exclusivity

A total of 30 strains were tested for **exclusivity**. All these strains showed the expected negative result.

3.3.3 Conclusion

The alternative NEOGEN® Molecular Detection Assay 2- STEC Gene Screen (*stx*) Reagent Tubes for *stx* genes detection and the NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*) Reagent Tubes for the *stx* and *eae* genes detection methods are selective and specific.

3.4 Conclusion Method Comparison Study

Overall, the conclusions for the Method Comparison Study are:

The observed values for TND-PD for the individual categories, whatever the test portion (25 g or 375 g for the raw meat category) and for all categories meet the acceptability limits (observed values ≤ AL).

The RLOD values (using the confirmed alternative method results) meet the acceptability limit, which is 2.5 for unpaired studies, for the four matrix/strain pairs tested.

The alternative NEOGEN® Molecular Detection Assay 2- STEC Gene Screen (*stx*) Reagent Tubes for *stx* genes detection and the NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*) Reagent Tubes for the *stx* and *eae* genes detection methods are selective and specific.

4 INTER-LABORATORY STUDY

The inter-laboratory study is a study performed by multiple laboratories testing identical samples at the same time, the results of which are used to estimate alternative-method performance parameters.

4.1 Study organisation

Two ILS were required in order to obtain sufficient number of acceptable datasets to analyse the performance of the method. The results presented below are a combination the two ILS.

> Collaborators number

During the first ILS, samples were sent to 9 laboratories (including ADRIA) located in 6 different countries. At the beginning, a total of 11 collaborators were involved in the study with two laboratories participating with two collaborators (Lab D and F). Unfortunately, due to reagent shipment delay, the one laboratory removed its participation and a total of 9 data set were collected.

During the second ILS, samples were sent to 6 laboratories (including ADRIA) located in 2 different countries. One laboratory participated to the study with two collaborators (A).

> Matrix and strain used

For both ILS, chilled ground beef samples, originating from the same facility, were individually inoculated with *Escherichia coli* O26:H11 12-62 (*stx*1+, *stx*2-, *eae*+) isolated from meat.

> Samples

Samples were prepared and inoculated on Monday 12th February 2024 for the first ILS and on Monday 3rd February 2025 for the second ILS, as described below:

- 24 blind coded samples (25 g) for Shiga-toxin-producing *Escherichia coli* (STEC) detection based on the **ISO/TS 13136** reference method (**Option 1 or 2**)
- 24 blind coded samples (25 g) for Shiga-toxin-producing *Escherichia coli* (STEC) detection by the **NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*) method**

- 1 sample for aerobic mesophilic flora enumeration by ISO 4833-1 method,
- 1 water flask labelled "Temperature Control".
- 1 Temperature probe

> *Inoculation*

The targeted inoculation levels were the following:

- Level: 0 CFU/25 g.
- Level 1: 1 CFU/25 g (ILS n°1) and 0.7 CFU/25g (ILS n°2), inoculation level providing fractional positive recovery data.
- Level 2: 8 CFU/25 g.

> *Labelling and shipping*

Blind coded samples were placed in isothermal boxes, which contained cooling blocks, and express-shipped to the different laboratories.

A temperature control flask and a sensor were added to the package in order to register the temperature profile during the transport, the package delivery, the storage until analyses and during the incubation period. The temperature conditions had to stay lower or equal to 8°C during transport, and between 0°C – 8°C in the labs.

Samples were shipped to the involved laboratories. While all the laboratories in EU received the package after a maximum delay of 48h, difficulties were observed for shipment outside EU for the first ILS. One lab received the sample after 7 days (collaborator I) and another one after 9 days (collaborator H).

> *Analyses*

Collaborative study laboratories and the expert laboratory carried out the analyses with alternative and reference methods the same day. The collaborators were supposed to start the analysis two to three days after the inoculation at the latest.

For the alternative method, the protocol ① (25 g test portion, 225ml BPW) was tested during the study with the minimum incubation time (10 h at 41.5°C ± 1°C).

As *stx* and *eae* tests included in the Kit MDA2STXEAE48 are both simplex reactions, it was accepted to test only the Kit MDA2STXEAE48 during the validation and to proceed to two interpretations: detection of *stx* and detection of *stx* and *eae*.

The confirmation of positive results was performed (after 10 h incubation time) by direct streaking onto CHROMagar STEC and TBX selective agar plates.

4.2 Experimental parameters controls

4.2.1 Detection of Shiga-toxin-producing *E. coli* STEC in the matrix before inoculation

In order to detect the presence of Shiga-toxin-producing *E. coli* STEC, the reference method was performed on five portions (25 g) before the inoculation for both ILS. All the results were negative.

4.2.2 Strain stability during transport

For the first ILS, strain stability was checked by inoculating the matrix at 1000 CFU/g and at 1 CFU/25 g. Enumerations were performed for the high contamination level and detection analyses were performed for the low contamination level at Day 0 to Day 7. Triplicates samples were analysed. The mesophilic aerobic flora was also enumerated.

For the second ILS, as the strain/matrix pair was the same, only the detection analyses were performed for the low contamination level at Day 0 to Day 3. The mesophilic aerobic flora was also enumerated.

All the results are given in Table 31.

Table 31 - Shiga-toxin-producing *E. coli* STEC - Sample stability

	Day	Reference method (detection)			Alternative method (detection)			CFU/g (enumeration)			Mesophilic aerobic flora (CFU/g)
		Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3	
ILS n°1	Day 0	+	+	+	+	-	+	3.0 x 10 ²	8.0 x 10 ²	5.0 x 10 ²	/
	Day 2	+	+	+	+	+	-	9.2 x 10 ²	9.8 x 10 ²	1.0 x 10 ³	1.2 x 10 ³
	Day 3	-	+	+	+	-	+	9.3 x 10 ²	8.6 x 10 ²	9.6 x 10 ²	/
	Day 4	+	-	+	+	+	+	5.9 x 10 ²	9.3 x 10 ²	4.3 x 10 ²	/
	Day 7	-	-	-	+	-	-	8.2 x 10 ²	8.5 x 10 ²	8.5 x 10 ²	> 3.10 ⁶
ILS n°2	Day 0	-	-	-	+	+	+	/			5.5 x 10 ³
	Day 1	+	-	+	+	+	-				1.9 x 10 ⁴
	Day 2	+	+	-	+	-	-				6.9 x 10 ³
	Day 3	+	-	+	+	+	-				1.9 x 10 ⁴

While no evolution of the detection and the enumeration of Shiga-toxin-producing *E. coli* was observed during storage at 5°C ± 3°C up to day 7, an important increase of the mesophilic flora is observed from day 3 to day 7. Similar results were obtained at Day 2 between both batch for matrix (ILS n°1 and 2).

4.2.3 Contamination levels

The contamination levels and the sample codification were the following (see Table 32).

Table 32 - Contamination levels

	Level	Samples	Theoretical target level (CFU/test portion)	True level (CFU/test portion)	Low limit (CFU/test portion)	High limit (CFU/test portion)
ILS n°1	0	Collaborator 1: 1-5-7-12-15-17-19-23 Collaborator 2: 26-29-32-34-37-39-43-48	/	/	/	/
	1	Collaborator 1: 2-3-8-10-13-16-21-24 Collaborator 2: 27-33-36-38-40-41-44-46	1.0	1.2	0.9	1.5
	2	Collaborator 1: 4-6-9-11-14-18-20-22 Collaborator 2: 25-28-30-31-35-42-45-47	8.0	8.4	6.6	10.5
ILS n°2	0	Collaborator 1: 1-6-10-13-15-19-21-23 Collaborator 2: 26-31-32-34-38-41-44-46	/	/	/	/
	1	Collaborator 1: 2-4-5-8-11-17-20-24 Collaborator 2: 27-28-30-33-37-39-42-48	0.7	0.7	0.5	1.0
	2	Collaborator 1: 3-7-9-12-14-16-18-22 Collaborator 2: 25-29-35-36-40-43-45-57	8.0	9.6	7.9	11.7

4.2.4 Logistic conditions

The temperatures measured at reception by the collaborators, the temperatures registered by the thermo-probe, and the receipt dates are given in Table 33.

Table 33 - Sample temperatures at receipt

	Collaborators	Temperature measured		Receipt date and time		Analysis date
		by the probe (°C)	at receipt (°C)			
ILS n°1	A	2.5°C	1.8°C	13/02/2024 12 am		14/02/2024 (day 2)
	C	3.5°C	4.6°C	14/02/2024 7 am		15/02/2024 (day 3)
	D1	1.9°C	1.6°C	13/02/2024 11 am		19/02/2024 (day 7)
	D2	1.2°C	1.3°C	13/02/2024 11 am		19/02/2024 (day 7)
	E	3.8°C	2.0°C	13/02/2024 10 am		14/02/2024 (day 2)
	G	6.4°C	4.9°C	14/02/2024 9 am		15/02/2024 (day 3)
	H	14.7°C	14.1°C	22/02/2024 11 am (EST)		22/02/2024 (day 9)
	I	7.2°C	/	20/02/2024 10 am		05/03/2024 (day 22 after freezing)
ILS n°2	A1	3.0°C	3.6°C	04/02/2025 14h30		05/02/2025
	A2	3.6°C	3.9°C	04/02/2025 14h30		05/02/2025
	B	2.3°C	5.8°C	04/02/2025 10h30		05/02/2025
	C	3.3°C	4.9°C	04/02/2025 10h30		04/02/2025
	D	2.7°C	/	05/02/2025 11h30		06/02/2025
	E	3.4°C	3.7°C	05/02/2025 9h00		06/02/2025

For the first ILS, no problem was encountered during the transport or at receipt for 7 collaborators in EU. For the two collaborators outside EU, the shipment arrived after 7 or 9 days (H and I).

Due to delay in reagent shipment as well, two additional collaborators were not capable of analysing the samples before day 7 (D1 and D2).

Due to these problems, it was decided to remove the collaborators D1, D2, H and I for the final interpretation.

For the second ILS, no problem was encountered during the transport or at receipt for the 7 collaborators. All the samples were delivered on time and in appropriate conditions. Temperatures during shipment and at receipt were all correct.

However, after verification, one collaborator (D) used the wrong incubation temperature and time for the alternative method (17h at 37°C instead of 10h at 41.5°C).

It was decided to remove collaborator D for the final interpretation.

Therefore, 9 datasets remained for the interpretation (4 from ILS n°1 and 5 from ILS n°2). One independent dataset from ADRIA (ILS n°1) was used to complete to the minimum number of participants required.

4.3 Calculation and summary of data

The raw data are given **Appendix 9**.

4.3.1 *MicroVal Expert laboratory results*

The results obtained by the expert laboratory are given in Table 34. For both ILS, analysis at the expert lab were carried out on day 2 after inoculation by an independent analyst.

Table 34 – Results obtained by the expert Lab.

	Level	Reference method	Alternative method
ILS n°1	L0	0/8	0/8
	L1	6/8	6/8
	L2	8/8	8/8
ILS n°2	L0	0/8	0/8
	L1	5/8	6/8
	L2	8/8	8/8

4.3.2 *Results observed by the collaborative laboratories*

> *Mesophilic aerobic flora enumeration*

Depending on the Lab results and ILS, the enumeration levels varied from 2.5×10^3 to 1.4×10^5 CFU/g for ILS n°1 and from 6.9×10^3 to 8.6×10^6 for ILS n°2.

For ILS n°1, for collaborator A, the mesophilic aerobic flora enumeration was performed in inappropriate condition (dilution into mTSB).

In general, a higher count is observed for the ILS n°2.

Table 35 – Aerobic flora enumeration – (without collaborators D1, D2, H and I from ILS n°1 and D from ILS n°2)

	Collaborator	Aerobic mesophilic flora CFU/g	Analysis date
ILS n°1	A	1.9×10^4	14/02/2024 (day 2)
	C	2.5×10^3	15/02/2024 (day 3)
	E	1.4×10^5	14/02/2024 (day 2)
	G	2.9×10^3	15/02/2024 (day 3)
	J (ADRIA)	1.2×10^3	14/02/2024 (day 2)
ILS n°2	A1	5.9×10^5	05/02/2025 (day 2)
	A2	5.4×10^5	05/02/2025 (day 2)
	B	7.4×10^4	05/02/2025 (day 2)
	C	1.1×10^5	04/02/2025 (day 2)
	E	8.6×10^6	06/02/2025 (day 2)
	F (ADRIA)	6.9×10^3	05/02/2025 (day 2)

> ***Shiga-toxin-producing Escherichia coli (STEC) detection***

9 collaborators (for ILS n°1) and 7 collaborators (ILS n°2) participated to the study. As explained in paragraph 3.2.4. some participants were excluded from the final interpretation due to the wrong storage, shipment conditions or error in the analysis:

- ILS n°1:
 - Collaborators H and I: late receipt of samples
 - Collaborators D1 and D2: late receipt of reagents
- ILS n°2 :
 - Collaborator D: wrong enrichment protocol

Additionally, one dataset from ADRIA was kept for interpretation.

Despite the difficulties observed during this study, interpretation with 10 data sets can be carried out with collaborators A, C, E, G, J for ILS n°1 and collaborators A1, A2, B, C and E for ILS n°2.

The results obtained are presented in Tables 36 and 37 (reference method) and Tables 38 and 39 (alternative method) for both interpretations *stx* and *stx/eae*.

Table 36 - Positive results by the reference method
(Without Labs D1, D2, H, I (ILS n°1) and D, F (ILS n°2)) – stx

	Collabo- rators	Contamination level								
		L0			L1			L2		
		MDA result	Confirmation result	Final result	MDA result	Confirmation result	Final result	MDA result	Confirmation result	Final result
ILS n°1	A	8	0	0	8	4	4	8	8	8
	C	0	0	0	8	8	8	8	8	8
	E	2	0	0	7	6	6	8	7	7
	G	4	0	0	7	6	6	8	8	8
	J (ADRIA)	0	0	0	6	6	6	8	8	8
ILS n°2	A1	0	0	0	5	6	5	8	8	8
	A2	1	0	0	4	4	4	8	8	8
	B	6	0	0	8	6	6	8	8	8
	C	0	0	0	5	5	5	8	8	8
	E	7	0	0	8	2	2	8	7	7
Total ILS n°1		14	0	0	36	30	30	40	39	39
Total ILS n°2		14	0	0	30	23	22	40	39	39
Total ILS n°1+n°2		28	0	0	66	53	52	80	78	78

Table 37 - Positive results by the reference method
(Without Labs D1, D2, H, I (ILS n°1) and D (ILS n°2)) – stx/eae

	Collabo- rators	Contamination level								
		L0			L1			L2		
		PCR result	Confirmation result	Final result	PCR result	Confirmation result	Final result	PCR result	Confirmation result	Final result
ILS n°1	A	8	0	0	8	4	4	8	8	8
	C	0	0	0	8	8	8	8	8	8
	E	2	0	0	7	6	6	8	7	7
	G	4	0	0	7	6	6	8	8	8
	J (ADRIA)	0	0	0	6	6	6	8	8	8
ILS n°2	A1	0	0	0	5	6	5	8	8	8
	A2	0	0	0	4	4	4	8	8	8
	B	6	0	0	8	6	6	8	8	8
	C	0	0	0	5	5	5	8	8	8
	E	7	0	0	8	2	2	8	7	7
Total ILS n°1		14	0	0	36	30	30	40	39	39
Total ILS n°2		13	0	0	30	23	22	40	39	39
Total ILS n°1+n°2		27	0	0	66	53	52	80	78	78

**Table 38 - Positive results (before and after confirmation)
 by the alternative method
 (Without Labs D1, D2, H, I (ILS n°1) and D, F (ILS n°2)) – stx**

	Collabo- rators	Contamination level								
		L0			L1			L2		
		MDA result	Confirmation result	Final result	MDA result	Confirmation result	Final result	MDA result	Confirmation result	Final result
ILS n°1	A	0	0	0	8	8	8	8	8	8
	C	0	0	0	7	7	7	8	8	8
	E	0	0	0	7	7	7	8	8	8
	G	0	0	0	7	7	7	8	8	8
	J (ADRIA)	0	0	0	6	6	6	8	8	8
ILS n°2	A1	0	0	0	5	5	5	8	8	8
	A2	0	0	0	1	1	1	8	8	8
	B	0	0	0	6	6	6	8	8	8
	C	0	0	0	5	5	5	8	8	8
	E	0	0	0	3	3	3	8	8	8
Total ILS n°1		0	0	0	35	35	35	40	40	40
Total ILS n°2		0	0	0	20	20	20	40	40	40
Total ILS n°1+n°2		0	0	0	55	55	55	80	80	80

**Table 39 - Positive results (before and after confirmation)
 by the alternative method
 (Without Labs D1, D2, H, I (ILS n°1) and D, F (ILS n°2)) – stx/ee**

	Collabo- rators	Contamination level								
		L0			L1			L2		
		MDA result	Confirmation result	Final result	MDA result	Confirmation result	Final result	MDA result	Confirmation result	Final result
ILS n°1	A	0	0	0	8	8	8	8	8	8
	C	0	0	0	7	7	7	8	8	8
	E	0	0	0	7	7	7	8	8	8
	G	0	0	0	7	7	7	8	8	8
	J (ADRIA)	0	0	0	6	6	6	8	8	8
ILS n°2	A1	0	0	0	5	5	5	8	8	8
	A2	0	0	0	1	1	1	8	8	8
	B	0	0	0	6	6	6	8	8	8
	C	0	0	0	5	5	5	8	8	8
	E	0	0	0	3	3	3	8	8	8
Total ILS n°1		0	0	0	35	35	35	40	40	40
Total ILS n°2		0	0	0	20	20	20	40	40	40
Total ILS n°1+n°2		0	0	0	55	55	55	80	80	80

At level 0, cross-contaminations were observed in the reference PCR results at all levels. In each case, the PCR results could not be confirmed. This outcome can reasonably be attributed to potential DNA cross-contamination during extraction, given the complexity of the multi-step ADRIA reference extraction method (option 2). The use of this method may pose challenges for laboratories not routinely trained or experienced in its application. Notably, no contamination was observed when either another internal reference method or the alternative method was used. As such cross-contamination does not affect the final outcome of the reference method and is absent in the alternative method, the data were retained for interpretation.

4.3.3 Calculation of the specificity percentage (SP)

The percentage specificities (SP) of the reference method and of the alternative method, using the data after confirmation, based on the results of level L0, are the following (See Table 40).

Table 40 - Percentage specificity

Stx/eae	Specificity for the reference method	$SP_{ref} = \left(1 - \left(\frac{P_0}{N_-}\right)\right) \times 100 \% =$	100 %
		$SP_{ref \text{ PCR only}} = \left(1 - \left(\frac{P_0}{N_-}\right)\right) \times 100 \% =$	66 %
	Specificity for the alternative method	$SP_{alt} = \left(1 - \left(\frac{CP_0}{N_-}\right)\right) \times 100 \% =$	100 %
		$SP_{alt \text{ PCR only}} = \left(1 - \left(\frac{P_0}{N_-}\right)\right) \times 100 \% =$	100 %
stx	Specificity for the reference method	$SP_{ref} = \left(1 - \left(\frac{P_0}{N_-}\right)\right) \times 100 \% =$	100 %
		$SP_{ref \text{ PCR only}} = \left(1 - \left(\frac{P_0}{N_-}\right)\right) \times 100 \% =$	65 %
	Specificity for the alternative method	$SP_{alt} = \left(1 - \left(\frac{CP_0}{N_-}\right)\right) \times 100 \% =$	100 %
		$SP_{alt \text{ PCR only}} = \left(1 - \left(\frac{P_0}{N_-}\right)\right) \times 100 \% =$	100 %

N: number of all L0 tests

P_0 = total number of false-positive results obtained with the blank samples before confirmation

CP_0 = total number of false-positive results obtained with the blank samples

The percentage of specificity is at 100% for both methods considering the complete workflow. However, it can be observed a decrease in the specificity for the reference method if we consider only the PCR part due to the cross contamination. This is not the case for the alternative method which remained specific in all circumstances.

4.3.4 **Calculation of sensitivity (SE_{alt}), sensitivity for the reference method (SE_{ref}), relative trueness (RT , false positive ratio for the alternative method (FPR) and false negative ratio for the alternative method (FNR)**

Fractional positive results were obtained for the low inoculation levels (L1): 65% for the reference method and 68.8% for the alternative method. This inoculation level was retained for calculation.

A summary of the results obtained with the reference and the alternative methods is presented in Table 41 for both interpretations (*stx* and *stx/eae*).

Table 41 - Summary of results for all collaborators obtained with the reference and alternative methods for Level 1 (Without Labs D1, D2, H, I (ILS n°1) and D, F (ILS n°2))

Level	Response	Reference method positive (R+)	Reference method negative (R-)
<i>stx/eae</i>	Alternative method positive (A+)	Positive agreement (A+/R+) PA = 40	Positive deviation (R-/A+) PD = 15
	Alternative method negative (A-)	Total Negative deviation (A-/R+) TND = 12 (0 ND_{FN(alt)})	Total Negative agreement (A-/R-) TNA = 13 (0 NA_{FN(alt)})
<i>stx</i>	Alternative method positive (A+)	Positive agreement (A+/R+) PA = 40	Positive deviation (R-/A+) PD = 15
	Alternative method negative (A-)	Total Negative deviation (A-/R+) TND = 12 (0 ND_{FN(alt)})	Total Negative agreement (A-/R-) TNA = 13 (0 NA_{FN(alt)})

Based on the data summarized in Table 41, the values of sensitivity of the alternative and reference methods, as well as the relative trueness and false positive ratio for the alternative method taking account the confirmations, are the following (See Table 42).

Table 42 - Sensitivity, relative trueness, false positive ratio and false negative ratio percentages for Level 1 (Without Lab D1, D2, H, I (ILS n°1) and D, F (ILS n°2))

		<i>stx</i>	<i>stx/eae</i>
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	82.1%	82.1%
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	77.6%	77.6%
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	66.3%	66.3%
False positive ratio for the alternative method (unpaired evaluation)	$FPR = \frac{PA_{FP(alt)} + PD_{FP(alt)}}{TNA} \times 100 \%$	0.0%	0.0%
False negative ratio for the alternative method (unpaired evaluation)	$FNR = \frac{NA_{FN(alt)} + ND_{FN(alt)}}{PA + TND + PD}$	0.0%	0.0%

With $TNA = NA + NA_{FN(alt)} + PD_{FP(alt)}$

$TND = ND + ND_{FN(alt)} + PA_{FP(alt)}$

4.3.5 Interpretation of data

Negative deviations are listed in Table 43 for Level 1. No negative deviation was observed for Level 2.

Table 43 - Negative deviations for Level 1 (Without Lab D1, D2, H, I (ILS n°1) and D, F (ILS n°2))

	Lab	Sample N°	Results NEOGEN MDA2 STEC Gene		Confirmation	
			<i>stx</i>	<i>eae</i>	CHROMagar STEC	TBX
ILS n°1	C	3	-	-	-	-
	E	24	-	-	-	-
	G	21	-	-	-	-
	J	3	-	-	-	-
ILS n°2	A1	17	-	-	-	-
	A2	27	-	-	-	-
	A2	30	-	-	-	-
	A2	37	-	-	-	-
	B	20	-	-	-	-
	B	24	-	-	-	-
	E	2	-	-	-	-
	E	8	-	-	-	-

For all negative deviations, consistent results were obtained between NEOGEN MDA2 STEC and confirmation, with no false negative result observed.

Positive deviations are listed in Table 44 for Level 1 and in Table 45 for Level 2.

Table 44 - Positive deviations for Level 1
(Without Lab D1, D2, H, I (ILS n°1) and D, F (ILS n°2))

	Lab	Sample N°	Results NEOGEN MDA2 STEC Gene		Confirmation	
			stx	eae	CHROMagar STEC	TBX
ILS n°1	A	2	+	+	+	+
	A	10	+	+	+	+
	A	16	+	+	+	+
	A	21	+	+	+	+
	E	10	+	+	+	+
	E	13	+	+	+	+
	G	13	+	+	+	+
	G	24	+	+	+	+
	J	24	+	+	+	+
ILS n°2	A1	24	+	+	+	+
	B	5	+	+	+	+
	B	8	+	+	+	+
	E	5	+	+	+	+
	E	17	+	+	+	+
	E	20	+	+	+	+

Table 45 - Positive deviations for Level 2
(Without Lab D1, D2, H, I (ILS n°1) and D, F (ILS n°2))

	Lab	Sample N°	Results NEOGEN MDA2 STEC Gene		Confirmation	
			stx	eae	CHROMagar STEC	TBX
ILS n°1	E	11	+	+	+	+
ILS n°2	E	22	+	+	+	+

For an **unpaired study design**, the difference between (TND – PD) is calculated for the level(s) where fractional recovery is obtained (so L_1 and possibly L_2). The observed value found for (TND – PD) shall not be higher than the AL. The AL is defined as $[(TND - PD)_{max}]$ and calculated per level where fractional recovery is obtained as described below using the following three parameters:

$$(p+)_{ref} = \frac{P_{x(ref)}}{N_{x(ref)}}$$

where

$P_{x(ref)}$ = is number of samples with a positive result obtained with the reference method at level x (L_1 or L_2) for all laboratories

$N_{x(ref)}$ = is number of samples tested at level x (L_1 or L_2) with the reference method by all laboratories

$$(p+)_{alt} = \frac{CP_{x(alt)}}{N_{x(alt)}}$$

where

$CP_{x(alt)}$ = is number of samples with a confirmed positive result obtained with the alternative method at level x (L_1 or L_2) for all laboratories

$N_{x(alt)}$ = is number of samples tested at level x (L_1 or L_2) with the alternative method by all laboratories

$$(TND - PD)_{max} = \sqrt{3N_{x(ref)} \times ((p+)_{ref} + (p+)_{alt} - 2((p+)_{ref} \times (p+)_{alt}))}$$

where

$N_{x(ref)}$ = is number of samples tested for level x (L_1 or L_2) with the reference method by all laboratories.

The AL is not met when the observed value is higher than the AL. When the AL is not met, investigations should be made (e.g. root cause analysis) in order to provide an explanation of the observed results. Based on the AL and the additional information, it is decided whether the alternative method is regarded as not fit for purpose. The reasons for acceptance of the alternative method when the AL is not met shall be stated in the study report.

In this study, fractional recovery was observed at Level 1 and Level 2. The calculations are the following, according to the EN ISO 16140-2/A1 (2024) (See Table 46).

Table 46 – Calculations
(Without Lab D1, D2, H, I (ILS n°1) and D, F (ILS n°2))

	<i>stx</i>	<i>stx/eae</i>
N_x	80	80
$(p^+)_{ref}$	0.650	0.650
$(p^+)_{alt}$	0.688	0.688
AL = (TND - PD) max	10.32	10.32
TND - PD	-3	-3
Conclusion	TND-PD<AL	TND-PD<AL

The ISO 16140-2: requirements are fulfilled as (TND - PD) is below the Acceptability limit (AL) for both interpretation (*stx* or *stx/eae*).

4.3.6 Evaluation of the LOD_{50%}, LOD_{95%} and RLOD between laboratories

The RLOD is the ratio of LODs of the alternative method and of the reference method calculated as follows: $RLOD = LOD_{p;alt} / LOD_{p;ref}$.

The results are given in Table 47.

Table 47 - LOD_{50%} and RLOD

Method	LOD 50%	RLOD
Reference	0.856 [0.606-1.208]	0.612
Alternative	0.524 [0.379-0.725]	

This calculation was made by combining the acceptable dataset of two ILS studies.

5 GENERAL CONCLUSION

Overall, the conclusions for the Method Comparison Study are:

The observed values for TND-PD for the individual categories, whatever the test portion (25 g or 375 g for the raw meat category) and for all categories meet the acceptability limits (observed values $\leq$ AL).

The RLOD values (using the confirmed alternative method results) meet the acceptability limit, which is 2.5 for unpaired studies, for the four matrix/strain pairs tested.

The alternative NEOGEN Molecular Detection Assay 2- STEC Gene Screen (*stx*) Reagent Tubes for *stx* genes detection and the NEOGEN Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*) Reagent Tubes for the *stx* and *eae* genes detection methods are selective and specific.

The inter-laboratory study conclusions are:

The observed values for TND-PD are lower than the acceptability limits.

The data and interpretations comply with the ISO 16140-2:2016, ISO 16140-2/A1:2024 requirements.

The NEOGEN[®] Molecular Detection Assay 2 - STEC Gene Screen (*stx*) for the detection of Shiga-toxin gene (*stx1* and *stx2*) from Shiga-toxin-producing *E. coli* STEC and the NEOGEN[®] Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*) for the detection of Shiga-toxin gene (*stx1* and *stx2*) and intimin gene (*eae*) from Shiga-toxin-producing *E. coli* STEC are considered equivalent to the ISO standard.

Quimper, 29 August 2025

Florian QUERO
Technical Study Manager
Method performance in food microbiology

Astrid CARIOU
Manager
Method performance in food microbiology

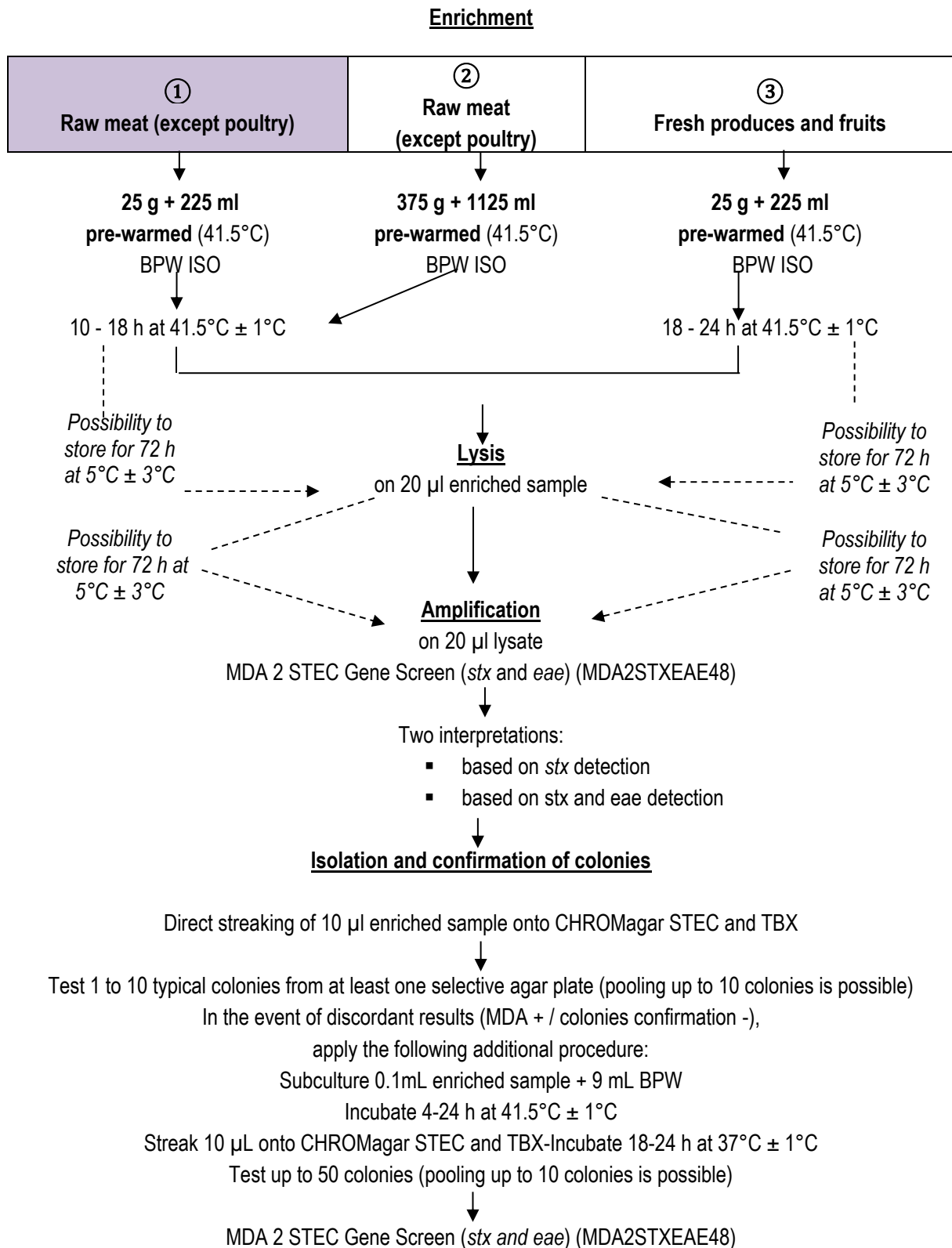
I hereby attest to the validation of the results of the analyses carried out under the COFRAC accreditation.

I hereby attest to the validation of the verification of the conformity of the report (opinion and interpretation).

6 REFERENCES

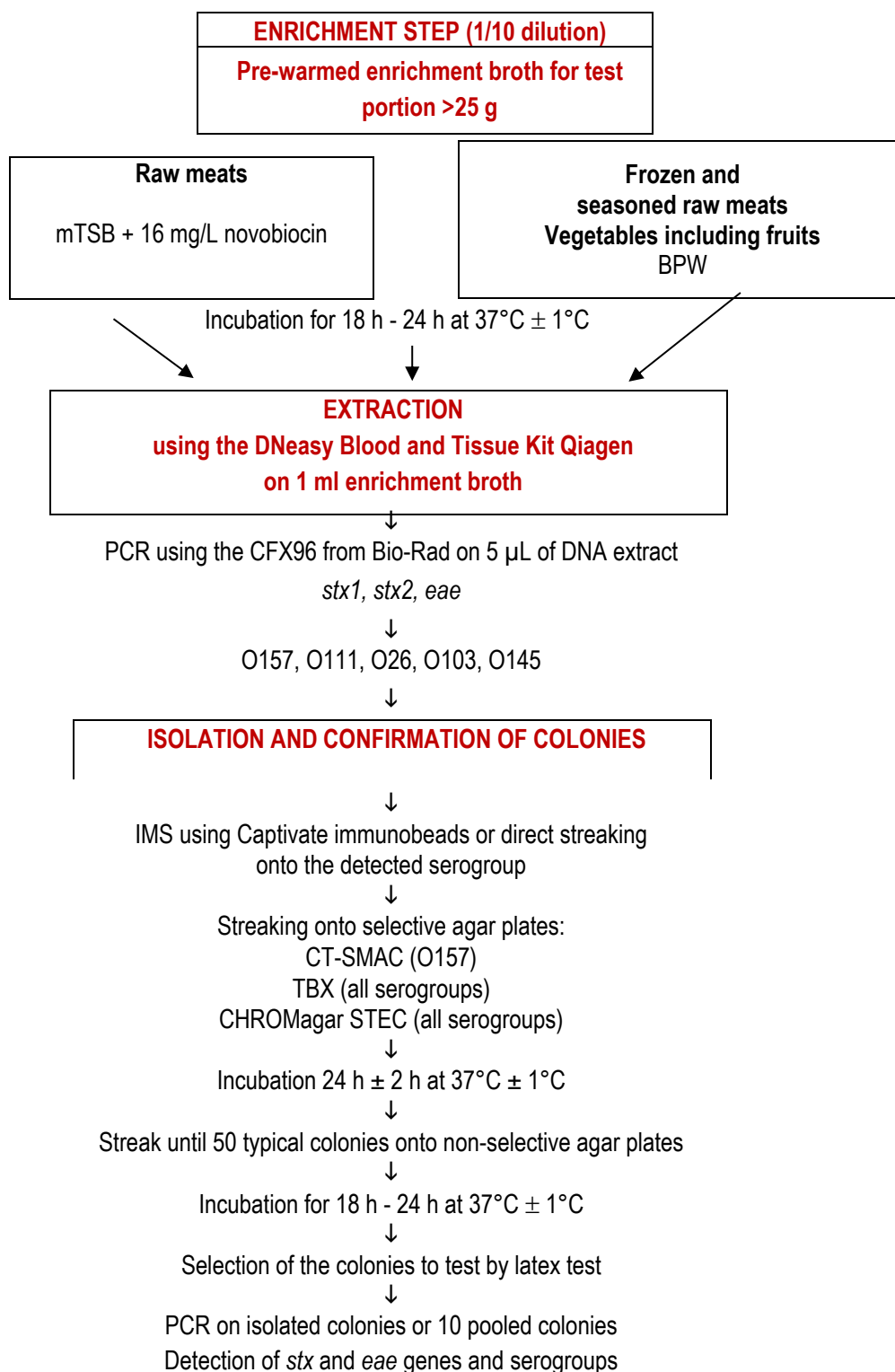
- ISO 4833-1:2013; Microbiology of the food chain -- Horizontal method for the enumeration of microorganisms -- Part 1: Colony count at 30 degrees C by the pour plate technique
- ISO 7218; Microbiology of food and animal feeding stuffs -- General requirements and guidance for microbiological examinations.
- ISO 16140-2 (2016) & ISO 16140-2/A1 (2024); Microbiology of the food chain -- Method validation -- Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method.
- 2016-028 (GC) Proposed MicroVal Technical committee interpretation of ISO 16140-2 and ISO
- 2017-063 (TC) The MicroVal Process
- IS/TS 13136 (2012): Microbiology of food and animal feed - Real-Time Polymerase Chain Reaction (PCR) based method for the detection of food-borne pathogens. Horizontal method for the detection of Shiga-toxin producing (STEC) and the determination of O26, O103, O111; O145 and O157 serogroups

**Appendix 1 – Flow diagram of the alternative method:
 NEOGEN[®] Molecular Detection Assay 2 - STEC Gene Screen (*stx* and *eae*)**

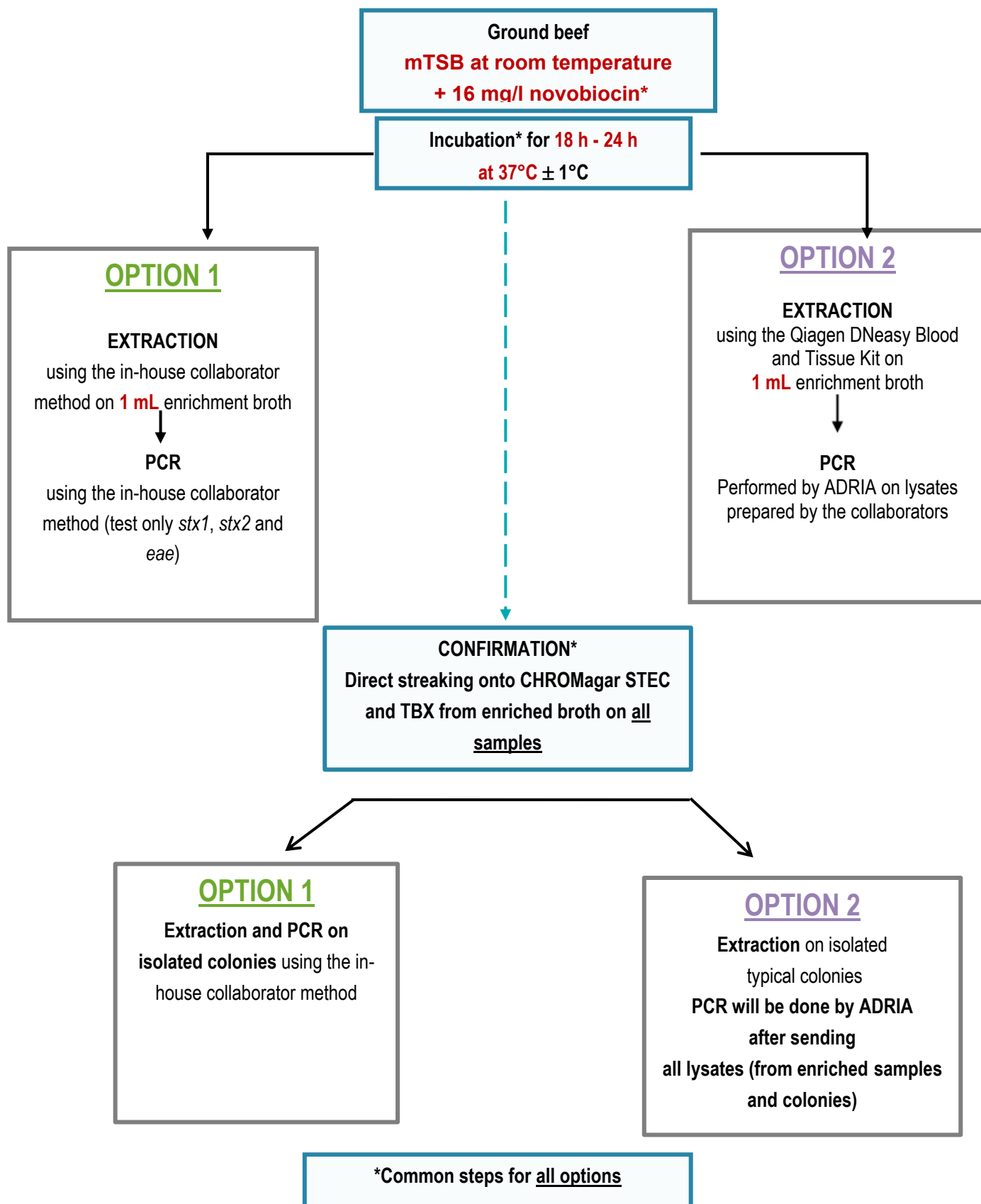


Protocol evaluated during the ILS

**Appendix 2 – Flow diagram of the reference method:
 ISO/TS 13136 (November 2012)**



**Appendix 3 – ISO/TS 13136 reference method option for the participants
 during the ILS**



Appendix 4 - Artificial inoculations

Date	Sample N°	Product (French name)	Product	Artificial contaminations								Global result		Category	Type	Test portion
				Strain	Virulence genes			Origin	Injury protocol	Inoculation level CFU/sample						
					stx1	stx2	eae			Enumeration	Mean	stx	stx & eae			
2020	5300	Epaule de veau	Fresh veal meat	<i>E. coli</i> O26 Ad3109	+	-	+	Veal meat	Seeding 48h at 3±2°C	1-4-2-1-1	1.8	+	+	1	a	25 g
2020	5301	Epaule de veau	Fresh veal meat	<i>E. coli</i> O103 Ad3113	+	-	+	Veal meat	Seeding 48h at 3±2°C	1-3-0-5-5	2.8	+	+	1	a	25 g
2020	5302	Côtes de porcs	Fresh pork meat	<i>E. coli</i> O157:H7 Ad571	+	+	+	Clinic	Seeding 48h at 3±2°C	5-3-4-4-1	3.4	+	+	1	a	25 g
2020	5303	Côtes de porcs	Fresh pork meat	<i>E. coli</i> O157:H7 Ad582	+	+	+	Clinic	Seeding 48h at 3±2°C	3-5-1-3-3	3	+	+	1	a	25 g
2020	5304	Epaule d'agneau	Fresh lamb meat	<i>E. coli</i> O157:H7 Ad571	+	+	+	Clinic	Seeding 48h at 3±2°C	5-3-4-4-1	3.4	+	+	1	a	25 g
2020	5305	Epaule d'agneau	Fresh lamb meat	<i>E. coli</i> O157:H7 Ad582	+	+	+	Clinic	Seeding 48h at 3±2°C	3-5-1-3-3	3	+	+	1	a	25 g
2020	5306	Côtes de porcs marinées	Marinated pork meat	<i>E. coli</i> O145 Ad983	-	+	+	Clinic	Seeding 48h at 3±2°C	1-2-4-5-0	2.4	+	+	1	c	25 g
2020	5307	Côtes de porcs marinées	Marinated pork meat	<i>E. coli</i> O157:H7 Ad582	+	+	+	Clinic	Seeding 48h at 3±2°C	3-5-1-3-3	3	+	+	1	c	25 g
2020	5308	Pavé de veau à l'échalotte	Marinated veal meat	<i>E. coli</i> O26 Ad3109	+	-	+	Veal meat	Seeding 48h at 3±2°C	1-4-2-1-1	1.8	+	+	1	c	25 g
2020	5309	Pavé de veau à l'échalotte	Marinated veal meat	<i>E. coli</i> O103 Ad3113	+	-	+	Veal meat	Seeding 48h at 3±2°C	1-3-0-5-5	2.8	+	+	1	c	25 g
2020	5310	Pavé d'agneau à la tomate	Marinated lamb meat	<i>E. coli</i> O145 Ad983	-	+	+	Clinic	Seeding 48h at 3±2°C	1-2-4-5-0	2.4	+	+	1	c	25 g
2021	5488	Haché pur bœuf surgelé	Frozen ground beef	<i>E. coli</i> O157:H7 Ad924	+	+	+	Ground beef	Seeding 2 weeks at -20°C	1-3-4-5-2	3	+	+	1	b	25 g
2021	5489	Jarret et plat de côte de bœuf surgelé	Frozen beef trim	<i>E. coli</i> O145:H28 2305-1	+	+	+	Meat product	Seeding 2 weeks at -20°C	2-2-1-2-3	2	+	+	1	b	25 g
2021	5490	Jarret et plat de côte de bœuf surgelé	Frozen beef trim	<i>E. coli</i> O157:H7 Ad924	+	+	+	Ground beef	Seeding 2 weeks at -20°C	1-3-4-5-2	3	+	+	1	b	25 g
2021	5491	Escalope de veau surgelée	Frozen veal meat	<i>E. coli</i> O145:H28 2305-1	+	+	+	Meat product	Seeding 2 weeks at -20°C	2-2-1-2-3	2	+	+	1	b	25 g
2021	5492	Sauté de veau surgelé	Frozen veal meat	<i>E. coli</i> O145:H28 2305-1	+	+	+	Meat product	Seeding 2 weeks at -20°C	2-2-1-2-3	2	-	-	1	b	25 g
2021	5493	Escalope de veau surgelée	Frozen veal meat	<i>E. coli</i> O157:H7 Ad924	+	+	+	Ground beef	Seeding 2 weeks at -20°C	1-3-4-5-2	3	+	+	1	b	25 g
2021	5494	Côtes de porcs surgelées	Frozen pork meat	<i>E. coli</i> O157:H7 803	+	+	+	Meat product	Seeding 2 weeks at -20°C	2-1-0-3-3	1.8	+	+	1	b	25 g
2021	5495	Filet mignon de porc surgelé	Frozen pork meat	<i>E. coli</i> O157:H7 803	+	+	+	Meat product	Seeding 2 weeks at -20°C	2-1-0-3-3	1.8	+	+	1	b	25 g
2021	5496	Filet mignon de porc surgelé	Frozen pork meat	<i>E. coli</i> O145:H28 1867-177	+	+	+	Meat product	Seeding 2 weeks at -20°C	0-5-1-2-3	2.2	+	+	1	b	25 g
2021	5497	Souris d'agneau surgelée	Frozen lamb meat	<i>E. coli</i> O157:H7 803	+	+	+	Meat product	Seeding 2 weeks at -20°C	2-1-0-3-3	1.8	+	+	1	b	25 g
2021	5498	Navarin d'agneau surgelé	Frozen lamb meat	<i>E. coli</i> O145:H28 1867-177	+	+	+	Meat product	Seeding 2 weeks at -20°C	0-5-1-2-3	2.2	+	+	1	b	25 g
2021	395	Viande bovine - Faux filet à griller	Fresh beef meat	<i>E. coli</i> Ad3103	+	+	-	Beef	Seeding 48h at 3±2°C	2-2-4-0-1	1.8	+	-	1	a	25 g
2021	396	Côte de porc à griller	Fresh pork meat	<i>E. coli</i> O111:H8- Ad1774	-	+	-	Clinic	Seeding 48h at 3±2°C	1-0-1-5-2	1.8	+	-	1	a	25 g
2021	397	Jambon escalope de porc	Fresh pork meat	<i>E. coli</i> O111:H8- Ad1774	-	+	-	Clinic	Seeding 48h at 3±2°C	1-0-1-5-2	1.8	+	-	1	a	25 g
2021	398	Poitrine de veau	Fresh veal meat	<i>E. coli</i> Ad3103	+	+	-	Beef	Seeding 48h at 3±2°C	2-2-4-0-1	1.8	+	-	1	a	25 g
2021	399	Gigot d'agneau en tranche	Fresh lamb meat	<i>E. coli</i> Ad3105	+	-	-	Leg of lamb	Seeding 48h at 3±2°C	4-3-2-2-1	2.4	+	-	1	a	25 g
2021	400	Pavés de rumsteck à l'échalotte	Marinated beef meat	<i>E. coli</i> Ad3103	+	+	-	Beef	Seeding 48h at 3±2°C	2-2-4-0-1	1.8	+	-	1	c	25 g
2021	402	Côte de porc mexicain	Seasoned pork meat	<i>E. coli</i> O111:H8- Ad1774	-	+	-	Clinic	Seeding 48h at 3±2°C	1-0-1-5-2	1.8	+	-	1	c	25 g
2021	404	Tranche d'agneau à l'ail	Marinated lamb meat	<i>E. coli</i> Ad3105	+	-	-	Leg of lamb	Seeding 48h at 3±2°C	4-3-2-2-1	2.4	+	-	1	c	25 g
2021	405	Rumsteck à l'échalotte	Marinated beef meat	<i>E. coli</i> O145:H28 092-4	-	+	+	Meat product	Seeding 48h at 3±2°C	2-2-4-0-1	1.8	+	+	1	c	25 g
2021	406	Steak haché de bœuf à l'oignon	Seasoned ground beef meat	<i>E. coli</i> O145:H28 1331-100	-	+	+	Meat product	Seeding 48h at 3±2°C	4-3-2-2-1	2.4	+	+	1	c	25 g
2021	407	Viande hachée de bœuf à la bolognaise	Seasoned ground beef meat	<i>E. coli</i> O111:H8 Ad511	+	+	+	Sick animal	Seeding 48h at 3±2°C	1-2-2-3-2	2	+	+	1	c	25 g
2021	408	Côte de porc mexicain	Seasoned pork meat	<i>E. coli</i> O145:H28 092-4	-	+	+	Meat product	Seeding 48h at 3±2°C	2-2-4-0-1	1.8	+	+	1	c	25 g
2021	409	Haché de veau à la tomate	Seasoned ground veal meat	<i>E. coli</i> O145:H28 1331-100	-	+	+	Meat product	Seeding 48h at 3±2°C	4-3-2-2-1	2.4	+	+	1	c	25 g
2021	410	Tranche d'agneau à l'ail	Marinated lamb meat	<i>E. coli</i> O145:H28 1331-100	-	+	+	Meat product	Seeding 48h at 3±2°C	4-3-2-2-1	2.4	+	+	1	c	25 g
2021	411	Tranche d'agneau à l'ail	Marinated lamb meat	<i>E. coli</i> O111:H8 Ad511	+	+	+	Sick animal	Seeding 48h at 3±2°C	1-2-2-3-2	2	+	+	1	c	25 g
2021	855	Boulettes de veau surgelées	Frozen veal meat	<i>E. coli</i> O113:H21 STEC 19-50	-	+	-	Meat product	Seeding 2 weeks at -20°C	1-3-2-2-4	2.4	-	-	1	b	25 g

Date	Sample N°	Product (French name)	Product	Artificial contaminations								Global result		Category	Type	Test portion
				Strain	Virulence genes			Origin	Injury protocol	Inoculation level CFU/sample						
					stx1	stx2	eae			Enumeration	Mean	stx	stx & eae			
2021	856	Escalope de veau surgelée	Frozen veal meat	<i>E. coli</i> O113:H21 STEC 19-50	-	+	-	Meat product	Seeding 2 weeks at -20°C	1-3-2-2-4	2.4	+	-	1	b	25 g
2021	857	Agneau navarin surgelé	Frozen lamb meat	<i>E. coli</i> Ad3108	+	-	-	Lamb	Seeding 2 weeks at -20°C	6-2-2-1-3	1.6	+	-	1	b	25 g
2021	858	Jarret d'agneau surgelé	Frozen lamb meat	<i>E. coli</i> Ad3108	+	-	-	Lamb	Seeding 2 weeks at -20°C	6-2-2-1-3	1.6	+	-	1	b	25 g
2021	859	Steak haché surgelé	Frozen ground beef	<i>E. coli</i> O113:H21 STEC 19-50	-	+	-	Meat product	Seeding 2 weeks at -20°C	1-3-2-2-4	2.4	+	-	1	b	25 g
2021	860	Côte de porc surgelée	Frozen pork meat	<i>E. coli</i> O113:H21 STEC 19-50	-	+	-	Meat product	Seeding 2 weeks at -20°C	1-3-2-2-4	2.4	+	-	1	b	25 g
2021	1241	Steak haché de bœuf TexMex	Seasoned beef meat	<i>E. coli</i> O145:H28 1867-177	-	+	+	Meat products	Seeding 48h at 3±2°C	2-1-5-3-2	2.6	+	+	1	c	375 g
2021	1242	Boulettes de bœuf à l'orientale	Seasoned beef meat	<i>E. coli</i> O157:H7 Ad1174	-	+	+	Meat products	Seeding 48h at 3±2°C	1-1-2-0-4	1.6	-	-	1	c	375 g
2021	1243	Pavé de bœuf à la mexicaine	Seasoned beef meat	<i>E. coli</i> O26:H11 12-62	+	-	+	Meat products	Seeding 48h at 3±2°C	1-0-3-3-0	1.4	+	+	1	c	375 g
2021	1244	Steak haché d'agneau aux tomates séchées	Seasoned lamb meat	<i>E. coli</i> O103:H2 72-11	+	-	+	Meat products	Seeding 48h at 3±2°C	5-3-4-0-4	3.2	+	+	1	c	375 g
2021	1245	Tajine d'agneau aux pruneaux amandes	Seasoned lamb meat	<i>E. coli</i> O157:H7 Ad1174	-	+	+	Meat products	Seeding 48h at 3±2°C	1-1-2-0-4	1.6	+	+	1	c	375 g
2021	1246	Agneau à l'ail	Seasoned lamb meat	<i>E. coli</i> O145:H28 1867-177	-	+	+	Meat products	Seeding 48h at 3±2°C	2-1-5-3-2	2.6	+	+	1	c	375 g
2021	1247	Viennoise de veau	Seasoned veal meat	<i>E. coli</i> O157:H7 Ad1174	-	+	+	Meat products	Seeding 48h at 3±2°C	1-1-2-0-4	1.6	+	+	1	c	375 g
2021	1248	Pavé de veau à l'échalotte	Seasoned veal meat	<i>E. coli</i> O26:H11 12-62	+	-	+	Meat products	Seeding 48h at 3±2°C	1-0-3-3-0	1.4	+	+	1	c	375 g
2021	1249	Boulettes de veau assaisonnées tomates	Seasoned veal meat	<i>E. coli</i> O145:H28 1867-177	-	+	+	Meat products	Seeding 48h at 3±2°C	2-1-5-3-2	2.6	+	+	1	c	375 g
2021	1250	Tranches de poitrine de porc saumurées marinées	Seasoned pork meat	<i>E. coli</i> O145:H28 1867-177	-	+	+	Meat products	Seeding 48h at 3±2°C	2-1-5-3-2	2.6	+	+	1	c	375 g
2021	1251	Filet mignon à l'ail	Seasoned pork meat	<i>E. coli</i> O157:H7 Ad1174	-	+	+	Meat products	Seeding 48h at 3±2°C	1-1-2-0-4	1.6	+	+	1	c	375 g
2021	1252	Côtes de porc à la mexicaine	Seasoned pork meat	<i>E. coli</i> O111 Ad3037	+	-	+	Unknown	Seeding 48h at 3±2°C	1-0-2-0-1	0.8	+	+	1	c	375 g
2021	1318	Haché de bœuf surgelé	Frozen beef meat	<i>E. coli</i> O145:H28 092-4	-	+	+	Meat products	Seeding 48h at 3±2°C	2-2-1-2-2	1.8	+	+	1	b	375 g
2021	1319	Effeuillés charolais surgelés	Frozen beef meat	<i>E. coli</i> O157:H7 Ad976	+	+	+	Meat products	Seeding 48h at 3±2°C	2-3-1-0-0	1.2	+	+	1	b	375 g
2021	1320	Steak haché de bœuf surgelé	Frozen beef meat	<i>E. coli</i> O26:H11 14-53	+	-	+	Meat products	Seeding 48h at 3±2°C	1-0-2-1-1	1	+	+	1	b	375 g
2021	1321	Escalopes hachées de veau surgelées	Frozen ground veal meat	<i>E. coli</i> O145:H28 092-4	-	+	+	Meat products	Seeding 48h at 3±2°C	2-2-1-2-2	1.8	+	+	1	b	375 g
2021	1322	Sauté de veau surgelé	Frozen veal meat	<i>E. coli</i> O157:H7 Ad976	+	+	+	Meat products	Seeding 48h at 3±2°C	2-3-1-0-0	1.2	+	+	1	b	375 g
2021	1323	Sauté de veau surgelé	Frozen veal meat	<i>E. coli</i> O111:H28 Ad3021	+	-	+	Unknown	Seeding 48h at 3±2°C	2-0-0-0-0	0.4	+	+	1	b	375 g
2021	1324	Côtes de porcs marinées surgelées	Frozen marinated pork meat	<i>E. coli</i> O145:H28 092-4	-	+	+	Meat products	Seeding 48h at 3±2°C	2-2-1-2-2	1.8	+	+	1	b	375 g
2021	1325	Filet mignon de porc à la moutarde surgelé	Frozen marinated pork meat	<i>E. coli</i> O157:H7 Ad976	+	+	+	Meat products	Seeding 48h at 3±2°C	2-3-1-0-0	1.2	+	+	1	b	375 g
2021	1326	Filet mignon de porc surgelé	Frozen pork meat	<i>E. coli</i> O103:H2 56-12	+	-	+	Meat products	Seeding 48h at 3±2°C	2-1-4-2-3	2.4	+	+	1	b	375 g
2021	1327	Souris d'agneau surgelée	Frozen lamb meat	<i>E. coli</i> O145:H28 092-4	-	+	+	Meat products	Seeding 48h at 3±2°C	2-2-1-2-2	1.8	+	+	1	b	375 g
2021	1328	Navarrin d'agneau surgelé	Frozen lamb meat	<i>E. coli</i> O157:H7 Ad976	+	+	+	Meat products	Seeding 48h at 3±2°C	2-3-1-0-0	1.2	+	+	1	b	375 g
2021	1329	Cotelettes d'agneau surgelées	Frozen lamb meat	<i>E. coli</i> O103:H2 56-12	+	-	+	Meat products	Seeding 48h at 3±2°C	2-1-4-2-3	2.4	+	+	1	b	375 g
2021	1838	Steaks hachés de boeuf surgelés	Frozen ground beef meat	<i>E. coli</i> STEC 19-50	-	+	-	Meat product	Seeding 2 weeks at -20°C	1-1-4-1-1	1.6	+	-	1	b	375 g
2021	1839	Viande hachée de bœuf surgelée	Frozen ground beef meat	<i>E. coli</i> STEC 19-50	-	+	-	Meat product	Seeding 2 weeks at -20°C	1-1-4-1-1	1.6	+	-	1	b	375 g
2021	1840	Côte de porc échine surgelée	Frozen pork meat	<i>E. coli</i> STEC 19-50	-	+	-	Meat product	Seeding 2 weeks at -20°C	1-1-4-1-1	1.6	+	-	1	b	375 g
2021	1841	Jarret de veau surgelé	Frozen veal meat	<i>E. coli</i> Ad3103	+	+	-	Meat product	Seeding 2 weeks at -20°C	3-3-2-2-1	2.2	+	-	1	b	375 g
2021	1842	Jarret de veau surgelé	Frozen veal meat	<i>E. coli</i> Ad3103	+	+	-	Meat product	Seeding 2 weeks at -20°C	3-3-2-2-1	2.2	+	-	1	b	375 g
2021	2016	Brochettes de boeuf à la provençale	Marinated beef meat	<i>E. coli</i> Ad3105	+	-	-	Meat product	Seeding 48h at 3±2°C	2-0-4-1-3	2	+	-	1	c	375 g
2021	2017	Steak haché à l'oignon	Seasoned ground beef meat	<i>E. coli</i> Ad3108	+	-	-	Meat product	Seeding 48h at 3±2°C	1-2-0-2-1	1.2	-	-	1	c	375 g

Date	Sample N°	Product (French name)	Product	Artificial contaminations								Global result		Category	Type	Test portion
				Strain	Virulence genes			Origin	Injury protocol	Inoculation level CFU/sample						
					stx1	stx2	eae			Enumeration	Mean	stx	stx & eae			
2021	2018	Côte de porc marinée à griller	Marinated pork meat	<i>E. coli</i> Ad3105	+	-	-	Meat product	Seeding 48h at 3±2°C	2-0-4-1-3	2	+	-	1	c	375 g
2021	2019	Pavé de veau à l'échalotte	Seasoned veal meat	<i>E. coli</i> Ad3108	+	-	-	Meat product	Seeding 48h at 3±2°C	1-2-0-2-1	1.2	+	-	1	c	375 g
2021	2020	Pavé d'agneau à la tomate	Seasoned lamb meat	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	3-3-4-5-1	3.2	+	-	1	c	375 g
2021	2021	Viande charolaise à mijoter	Fresh beef meat	<i>E. coli</i> Ad3108	+	-	-	Meat product	Seeding 48h at 3±2°C	3-2-3-4-4	3.2	+	-	1	a	375 g
2021	2022	Viande bovine pièce à fondue	Fresh beef meat	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	4-7-5-8-4	5.6	+	-	1	a	375 g
2021	2023	Jambon de porc avec os à rôtir	Fresh pork meat	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	4-7-5-8-4	5.6	+	-	1	a	375 g
2021	2024	Pointe de porc avec os à griller	Fresh pork meat	<i>E. coli</i> Ad3108	+	-	-	Meat product	Seeding 48h at 3±2°C	3-2-3-4-4	3.2	+	-	1	a	375 g
2021	2025	Blanquette de veau à mijoter	Fresh veal meat	<i>E. coli</i> Ad3105	+	-	-	Meat product	Seeding 48h at 3±2°C	2-5-5-2-3	3.4	+	-	1	a	375 g
2021	2026	Selle d'agneau sans os à rôtir	Fresh lamb meat	<i>E. coli</i> Ad3105	+	-	-	Meat product	Seeding 48h at 3±2°C	2-5-5-2-3	3.4	+	-	1	a	375 g
2021	2061	Viande bovine pièce à brochette	Fresh beef meat	<i>E. coli</i> O157:H7 Ad486	+	+	+	Beef meat	Seeding 48h at 3±2°C	2-1-3-3-6	3	+	+	1	a	375 g
2021	2062	Viande bovine basse côte	Fresh beef meat	<i>E. coli</i> O145 1331-100	-	+	+	Meat product	Seeding 48h at 3±2°C	5-2-4-2-6	4	+	+	1	a	375 g
2021	2063	Viande bovine bourguignon	Fresh beef meat	<i>E. coli</i> O26:H11	+	-	+	Meat product	Seeding 48h at 3±2°C	3-5-3-2-3	3.2	+	+	1	a	375 g
2021	2064	Côte de veau	Fresh veal meat	<i>E. coli</i> O157:H7 Ad486	+	+	+	Beef meat	Seeding 48h at 3±2°C	2-1-3-3-6	3	+	+	1	a	375 g
2021	2065	Escalope de veau	Fresh veal meat	<i>E. coli</i> O145 1331-100	-	+	+	Meat product	Seeding 48h at 3±2°C	5-2-4-2-6	4	+	+	1	a	375 g
2021	2066	Escalope de veau	Fresh veal meat	<i>E. coli</i> O103 Ad3113	+	-	+	Veal meat	Seeding 48h at 3±2°C	1-4-6-3-7	4.2	+	+	1	a	375 g
2021	2067	Côtes de porc échine	Fresh pork meat	<i>E. coli</i> O157:H7 Ad486	+	+	+	Beef meat	Seeding 48h at 3±2°C	2-1-3-3-6	3	+	+	1	a	375 g
2021	2068	Sauté de porc	Fresh pork meat	<i>E. coli</i> O145 1331-100	-	+	+	Meat product	Seeding 48h at 3±2°C	5-2-4-2-6	4	+	+	1	a	375 g
2021	2069	Rouelle de jambon avec os	Fresh pork meat	<i>E. coli</i> O111:H8 Ad511	+	+	+	Clinic	Seeding 48h at 3±2°C	5-7-4-1-7	4.8	+	+	1	a	375 g
2021	2070	Tranche de gigot d'agneau	Fresh lamb meat	<i>E. coli</i> O157:H7 Ad486	+	+	+	Beef meat	Seeding 48h at 3±2°C	2-1-3-3-6	3	+	+	1	a	375 g
2021	2071	Gigot d'agneau à rôtir	Fresh lamb meat	<i>E. coli</i> O145 1331-100	-	+	+	Meat product	Seeding 48h at 3±2°C	5-2-4-2-6	4	+	+	1	a	375 g
2021	2072	Côte filet d'agneau à griller	Fresh lamb meat	<i>E. coli</i> O111:H8 Ad511	+	+	+	Clinic	Seeding 48h at 3±2°C	5-7-4-1-7	4.8	+	+	1	a	375 g
2021	2407	Pavé de veau à l'échalotte	Seasoned veal meat	<i>E. coli</i> O103:H2 Ad3097	+	-	-	Dairy product	Seeding 72h at 3±2°C	2-2-7-4-2	3.4	+	-	1	c	375 g
2021	2408	Escalope de veau marinée	Marinated veal meat	<i>E. coli</i> Ad3188	+	+	-	Dairy product	Seeding 72h at 3±2°C	3-4-4-4-1	3.2	+	+	1	c	375 g
2021	2409	Boulettes de bœuf à la provençale	Seasoned beef meat	<i>E. coli</i> O103:H2 Ad3097	+	-	-	Dairy product	Seeding 72h at 3±2°C	2-2-7-4-2	3.4	+	-	1	c	375 g
2021	543	Graines germées - Alfalfa bio	Sprouted seeds (alfalfa)	<i>E. coli</i> O111 Ad981	+	-	+	Clinic	Seeding 48h at 3±2°C	3-1-0-2-2	1.6	-	-	2	a	25 g
2021	544	Graines germées - Alfalfa radis fenouil bio	Sprouted seeds (alfalfa radish fennel)	<i>E. coli</i> O111:H8 Ad3021	+	-	+	Unknown	Seeding 48h at 3±2°C	2-7-2-2-1	2.8	-	-	2	a	25 g
2021	545	Graines germées - Alfalfa roquette bio	Sprouted seeds (alfalfa arugula)	<i>E. coli</i> O111:H8 Ad3021	+	-	+	Unknown	Seeding 48h at 3±2°C	2-7-2-2-1	2.8	-	-	2	a	25 g
2021	546	Graines germées - Baby mungo bio	Sprouted seeds (baby mungo)	<i>E. coli</i> O145 Ad983	-	+	+	Clinic	Seeding 48h at 3±2°C	1-3-3-2-2	2.2	+	+	2	a	25 g
2021	547	Graines germées - Alfalfa bio	Sprouted seeds (alfalfa)	<i>E. coli</i> O145 Ad983	-	+	+	Clinic	Seeding 48h at 3±2°C	1-3-3-2-2	2.2	-	-	2	a	25 g
2021	548	Graines germées - Alfalfa radis fenouil bio	Sprouted seeds (alfalfa radish fennel)	<i>E. coli</i> O145 Ad2310	+	+	+	Unknown	Seeding 48h at 3±2°C	0-3-4-3-2	2.4	-	-	2	a	25 g
2021	549	Graines germées - Alfalfa roquette bio	Sprouted seeds (alfalfa arugula)	<i>E. coli</i> O145 Ad2310	+	+	+	Unknown	Seeding 48h at 3±2°C	0-3-4-3-2	2.4	+	+	2	a	25 g
2021	551	Graines germées - Alfalfa bio	Sprouted seeds (alfalfa)	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	2-3-0-0-3	1.6	-	-	2	a	25 g
2021	552	Chou Kale	Leafy green (kale cabbage)	<i>E. coli</i> O111 Ad981	+	-	+	Clinic	Seeding 48h at 3±2°C	3-1-0-2-2	1.6	+	+	2	b	25 g
2021	553	Scarole	Leafy greens (escarole)	<i>E. coli</i> O111:H8 Ad3021	+	-	+	Unknown	Seeding 48h at 3±2°C	2-7-2-2-1	2.8	+	+	2	b	25 g
2021	554	Chou chinois	Leafy greens (Chinese cabbage)	<i>E. coli</i> O145 Ad983	-	+	+	Clinic	Seeding 48h at 3±2°C	1-3-3-2-2	2.2	+	+	2	b	25 g
2021	555	Feuilles d'épinards fraîches	Leafy greens (fresh spinach leaves)	<i>E. coli</i> O145 Ad983	-	+	+	Clinic	Seeding 48h at 3±2°C	1-3-3-2-2	2.2	+	+	2	b	25 g
2021	556	Chou Kale	Leafy green (kale cabbage)	<i>E. coli</i> O145 Ad2310	+	+	+	Unknown	Seeding 48h at 3±2°C	0-3-4-3-2	2.4	+	+	2	b	25 g
2021	557	Scarole	Leafy greens (escarole)	<i>E. coli</i> O145 Ad2310	+	+	+	Unknown	Seeding 48h at 3±2°C	0-3-4-3-2	2.4	+	+	2	b	25 g
2021	559	Feuilles d'épinards fraîches	Leafy greens (fresh spinach leaves)	<i>E. coli</i> O111:H8- Ad1774	-	+	-	Clinic	Seeding 48h at 3±2°C	0-3-0-1-3	1.4	+	-	2	b	25 g

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				Strain	Virulence genes			Origin	Injury protocol	Inoculation level CFU/sample						
					stx1	stx2	eae			Enumeration	Mean	stx	stx & eae			
2021	560	Chou chinois	Leafy greens (Chinese cabbage)	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	2-3-0-0-3	1.6	-	-	2	b	25 g
2021	561	Légumes vapeurs prêt à cuisiner	Cut mix vegetables ready-to-cook	<i>E. coli</i> O111 Ad981	+	-	+	Clinic	Seeding 48h at 3±2°C	3-1-0-2-2	1.6	+	+	2	c	25 g
2021	562	Champignons émincés prêt à cuisiner	Cut mushrooms ready-to-cook	<i>E. coli</i> O111:H8 Ad3021	+	-	+	Unknown	Seeding 48h at 3±2°C	2-7-2-2-1	2.8	-	-	2	c	25 g
2021	563	Légumes vapeurs prêt à cuisiner	Cut mix vegetables ready-to-cook	<i>E. coli</i> O111:H8- Ad1774	-	+	-	Clinic	Seeding 48h at 3±2°C	0-3-0-1-3	1.4	+	-	2	c	25 g
2021	564	Mangue coupée prêt à déguster	Cut mango ready-to-eat	<i>E. coli</i> O111 Ad981	+	-	+	Clinic	Seeding 48h at 3±2°C	3-1-0-2-2	1.6	+	+	2	c	25 g
2021	565	Ananas coupé prêt à déguster	Cut pineapple ready-to-eat	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	2-3-0-0-3	1.6	+	-	2	c	25 g
2021	736	Graines germées - Alfalfa poireaux	Sprouted seeds (alfalfa leeks)	<i>E. coli</i> O157:H7 Ad3118	+	+	+	Vegetables	Seeding 48h at 3±2°C	0-6-4-4-3	3.4	-	-	2	a	25 g
2021	737	Graines germées - Alfalfa poireaux	Sprouted seeds (alfalfa leeks)	<i>E. coli</i> O26:H11 Ad1507	+	+	+	Unknown	Seeding 48h at 3±2°C	3-0-1-0-2	1.2	+	+	2	a	25 g
2021	738	Graines germées - Alfalfa	Sprouted seeds (alfalfa)	<i>E. coli</i> O103 Ad1772	+	+	+	Clinic	Seeding 48h at 3±2°C	3-4-4-2-0	2.6	-	-	2	a	25 g
2021	739	Graines germées - Alfalfa radis fenouil	Sprouted seeds (alfalfa radish fennel)	<i>E. coli</i> O111:H8- Ad1774	+	+	+	Clinic	Seeding 48h at 3±2°C	1-5-1-3-3	2.6	-	-	2	a	25 g
2021	740	Graines germées - Pousses de haricots mungo	Sprouted seeds (baby mungo)	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	3-3-1-4-4	3	-	-	2	a	25 g
2021	741	Céleri branche	Leafy greens (celery branch)	<i>E. coli</i> O157:H7 Ad3118	+	+	+	Vegetables	Seeding 48h at 3±2°C	0-6-4-4-3	3.4	+	+	2	b	25 g
2021	742	Céleri branche	Leafy greens (celery branch)	<i>E. coli</i> O26:H11 Ad1507	+	+	+	Unknown	Seeding 48h at 3±2°C	3-0-1-0-2	1.2	+	+	2	b	25 g
2021	743	Mâche	Leafy greens (celery branch)	<i>E. coli</i> O157:H7 Ad3118	+	+	+	Vegetables	Seeding 48h at 3±2°C	0-6-4-4-3	3.4	+	+	2	b	25 g
2021	744	Mâche	Leafy greens (corn salad)	<i>E. coli</i> O103 Ad1772	+	+	+	Clinic	Seeding 48h at 3±2°C	3-4-4-2-0	2.6	+	+	2	b	25 g
2021	745	Laitue	Leafy greens (laitue)	<i>E. coli</i> O111:H8- Ad1774	+	+	-	Clinic	Seeding 48h at 3±2°C	1-5-1-3-3	2.6	+	-	2	b	25 g
2021	746	Laitue	Leafy greens (laitue)	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	3-3-1-4-4	3	+	-	2	b	25 g
2021	747	Salade fraiche de 5 fruits coupés	Fresh cut fruits	<i>E. coli</i> O26:H11 Ad1507	+	+	+	Unknown	Seeding 48h at 3±2°C	3-0-1-0-2	1.2	+	+	2	c	25 g
2021	748	Salade fraiche de fruits coupés	Fresh cut fruits	<i>E. coli</i> O103 Ad1772	+	+	+	Clinic	Seeding 48h at 3±2°C	3-4-4-2-0	2.6	+	+	2	c	25 g
2021	749	Morceaux d'ananas frais	Cut pineapple ready-to-eat	<i>E. coli</i> Ad3030	+	-	-	Unknown	Seeding 48h at 3±2°C	2-1-2-2-3	2	+	-	2	c	25 g
2021	750	Graines germées - Pousses de haricots mungo	Sprouted seeds (baby mungo)	<i>E. coli</i> Ad3030	+	-	-	Unknown	Seeding 48h at 3±2°C	2-1-2-2-3	2	+	-	2	a	25 g
2021	751	Groseilles rouges	Red currants	<i>E. coli</i> O103 Ad1772	+	+	+	Clinic	Seeding 48h at 3±2°C	3-4-4-2-0	2.6	-	-	2	c	25 g
2021	752	Groseilles rouges	Red currants	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	3-3-1-4-4	3	-	-	2	c	25 g
2021	753	Champignons de Paris frais coupés	Fresh cut mushrooms	<i>E. coli</i> O26:H11 Ad1507	+	+	+	Unknown	Seeding 48h at 3±2°C	3-0-1-0-2	1.2	+	+	2	c	25 g
2021	754	Champignons de Paris frais coupés	Fresh cut mushrooms	<i>E. coli</i> O103 Ad1772	+	+	+	Clinic	Seeding 48h at 3±2°C	3-4-4-2-0	2.6	+	+	2	c	25 g
2021	756	Mélange de carottes betteraves râpées	Grated beet and carrots	<i>E. coli</i> Ad3030	+	-	-	Unknown	Seeding 48h at 3±2°C	2-1-2-2-3	2	+	-	2	c	25 g
2021	1236	Courge butternut en cube surgelés	Frozen cut butternut	<i>E. coli</i> O145 Ad2310	+	+	+	Unknown	Seeding 2 weeks at -20°C	2-1-1-3-1	1.6	+	+	2	c	25 g
2021	1237	Oignons émincés surgelés	Frozen sliced onions	<i>E. coli</i> O157:H7 Ad582	+	+	+	Clinic	Seeding 2 weeks at -20°C	2-4-5-3-4	3.6	+	+	2	c	25 g
2021	1238	Poireaux en rondelles surgelés	Frozen sliced leeks	<i>E. coli</i> Ad1777	-	+	+	Clinic	Seeding 2 weeks at -20°C	2-3-0-3-2	2	-	-	2	c	25 g
2021	1239	Fruits exotiques surgelés	Frozen exotic fruits	<i>E. coli</i> O145 Ad2310	+	+	+	Unknown	Seeding 2 weeks at -20°C	2-1-1-3-1	1.6	-	-	2	c	25 g
2021	1240	Mélange de fruits rouges suraelés	Frozen berry mix	<i>E. coli</i> O157:H7 Ad582	+	+	+	Clinic	Seeding 2 weeks at -20°C	2-4-5-3-4	3.6	-	-	2	c	25 g

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2021	1437	Graines germées - Haricots Mungo	Sprouted seeds (baby mungo)	<i>E. coli</i> O111 Ad3037	+	-	+	Unknown	Seeding 48h at 3±2°C	1-2-2-1-1	1.4	+	+	2	a	25 g
2021	1438	Graines germées - Alfalfa, poireaux, lentilles bio	Sprouted seeds (alfalfa , leeks, lentils)	<i>E. coli</i> O111 Ad3037	+	-	+	Unknown	Seeding 48h at 3±2°C	1-2-2-1-1	1.4	+	+	2	a	25 g
2021	1439	Graines germées - Alfalfa bio	Sprouted seeds (alfalfa)	<i>E. coli</i> O111 Ad3037	+	-	+	Unknown	Seeding 48h at 3±2°C	1-2-2-1-1	1.4	+	+	2	a	25 g
2021	1440	Graines germées - Alfalfa, roquette bio	Sprouted seeds (alfalfa arugula)	<i>E. coli</i> O111 Ad3037	+	-	+	Unknown	Seeding 48h at 3±2°C	1-2-2-1-1	1.4	+	+	2	a	25 g
2021	1441	Graines germées - Alfalfa, radis, fenouil bio		<i>E. coli</i> Ad3030	+	-	-	Unknown	Seeding 48h at 3±2°C	4-6-4-5-7	5.2	+	-	2	a	25 g
2021	1442	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (alfalfa radish fennel)	<i>E. coli</i> O157:H7 Ad582	+	+	+	Clinic	Seeding 48h at 3±2°C	3-3-2-3-2	2.6	+	+	2	a	25 g
2021	1443	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (alfalfa radish fennel)	<i>E. coli</i> O26 Ad1777	-	+	+	Clinic	Seeding 48h at 3±2°C	0-2-5-1-1	1.8	+	+	2	a	25 g
2021	1444	Graines germées - Alfalfa bio	Sprouted seeds (alfalfa)	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	6-5-6-2-2	4.2	-	-	2	a	25 g
2021	1445	Graines germées - Radis rose bio	Sprouted seeds (radish)	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	6-5-6-2-2	4.2	-	-	2	a	25 g
2021	1446	Graines germées - Alfalfa bio	Sprouted seeds (alfalfa)	<i>E. coli</i> Ad3030	+	-	-	Unknown	Seeding 48h at 3±2°C	4-6-4-5-7	5.2	-	-	2	a	25 g
2021	1447	Graines germées - Alfalfa bio	Sprouted seeds (alfalfa)	<i>E. coli</i> O145 Ad2310	+	+	+	Unknown	Seeding 48h at 3±2°C	3-2-2-4-2	2.6	+	+	2	a	25 g
2021	1448	Salade sucrine	Leafy greens (sucrine salad)	<i>E. coli</i> Ad3200	+	-	-	Environment	Seeding 48h at 3±2°C	3-0-0-1-2	1.2	+	-	2	b	25 g
2021	1449	Roquette	Leafy greens(baby leaves)	<i>E. coli</i> Ad3030	+	-	-	Unknown	Seeding 48h at 3±2°C	4-1-4-4-1	2.8	+	-	2	b	25 g
2021	1450	Epinards frais	Leafy greens (fresh spinach leaves)	<i>E. coli</i> Ad3030	+	-	-	Unknown	Seeding 48h at 3±2°C	4-1-4-4-1	2.8	+	-	2	b	25 g
2021	2410	Graines germées - Alfalfa bio	Sprouted seeds (alfalfa)	<i>E. coli</i> O103:H2 Ad3097	+	-	-	Dairy product	Seeding 72h at 3±2°C	4-6-5-8-8	6.2	-	-	2	a	25 g
2021	2411	Graines germées - Alfalfa bio	Sprouted seeds (alfalfa)	<i>E. coli</i> Ad3188	+	+	-	Dairy product	Seeding 72h at 3±2°C	7-10-5-8-8	7.6	-	-	2	a	25 g
2021	2412	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (alfalfa radish fennel)	<i>E. coli</i> O91:H21 13482	+	+	-	Dairy product	Seeding 72h at 3±2°C	7-9-10-4-10	8	-	-	2	a	25 g
2021	2413	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (alfalfa radish fennel)	<i>E. coli</i> O111 Ad3179	+	-	+	Dairy product	Seeding 72h at 3±2°C	3-5-4-3-5	4	-	-	2	a	25 g
2021	2414	Graines germées - Alfafa, poireaux, lentilles bio	Sprouted seeds (alfalfa leeks lentils)	<i>E. coli</i> O111:H8 622-4	+	+	+	Dairy product	Seeding 72h at 3±2°C	10-7-7-8-7	7.8	-	-	2	a	25 g
2021	2415	Graines germées - Alfafa, poireaux, lentilles bio	Sprouted seeds (alfalfa leeks lentils)	<i>E. coli</i> O157:H7 Ad557	+	+	+	Environment	Seeding 72h at 3±2°C	3-11-6-3-4	5.4	-	-	2	a	25 g
2021	2416	Chou chinois	Leafy greens (Chinese cabbage)	<i>E. coli</i> Ad3188	+	+	-	Dairy product	Seeding 72h at 3±2°C	5-5-4-6-4	4.8	+	-	2	b	25 g
2021	2417	Mélange crudités (carottes, céleri, chou blanc)	Grated carrots, celery, cabbage	<i>E. coli</i> O91:H21 13482	+	+	-	Dairy product	Seeding 72h at 3±2°C	0-6-6-1-4	3.4	+	-	2	c	25 g
2021	2418	Chou rouge coupés en sachet	Cut cabbage	<i>E. coli</i> O111 Ad3179	+	-	+	Dairy product	Seeding 72h at 3±2°C	4-2-1-2-5	2.8	+	+	2	c	25 g
2021	2419	Baby carottes en sachet	Baby carrots	<i>E. coli</i> O26 Ad3056	+	+	+	Dairy product	Seeding 72h at 3±2°C	2-5-6-1-2	3.2	+	+	2	c	25 g
2021	2420	Groseilles rouges	Currants	<i>E. coli</i> O26 Ad3056	+	+	+	Dairy product	Seeding 72h at 3±2°C	2-5-6-1-2	3.2	+	+	2	c	25 g
2021	2421	Myrtilles	Blueberry	<i>E. coli</i> O111:H8 622-4	+	+	+	Dairy product	Seeding 72h at 3±2°C	3-5-7-5-5	5	+	+	2	c	25 g
2021	2927	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (alfalfa radish fennel)	<i>E. coli</i> O103 Ad3104	+	-	-	Dairy product	Seeding 72h at 3±2°C	9-12-13-12-18	12.8	+	-	2	a	25 g
2021	2928	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (alfalfa radish fennel)	<i>E. coli</i> Ad3030	+	-	-	Dairy product	Seeding 72h at 3±2°C	9-12-13-12-18	12.8	-	-	2	a	25 g
2021	2929	Graines germées - Radis rose bio	Sprouted seeds (radish)	<i>E. coli</i> O103 Ad3104	+	-	-	Raw milk cheese	Seeding 72h at 3±2°C	16-11-7-5-13	10.4	+	-	2	a	25 g
2021	2930	Graines germées - Radis rose bio	Sprouted seeds (radish)	<i>E. coli</i> Ad3030	+	-	-	Raw milk cheese	Seeding 72h at 3±2°C	16-11-7-5-13	10.4	+	-	2	a	25 g



Appendix 5 - Comparison 25 g vs 375 g for the ISO/TS 13136 reference method

Matrix: Frozen ground beef
Strain: *E. coli* O157:H7 Ad683
stx1- / stx2+ / eae+
Aerobic mesophilic flora: 7,8 10³ CFU/g

Sample	Level	Inoculation level (CFU/sample)	25 g								375 g									
			Reference method: ISO/TS 13136*								Reference method : ISO/TS 13136*									
			PCR				Confirmation		ISO/TS 13136		Positive / Total	PCR				Confirmation		ISO/TS 13136		Positive / Total
							Final result confirmatory tests									Final result confirmatory tests				
stx1	stx 2	eae	O157	Result	Serogroup	Global result	Serogroup	stx1	stx 2	eae		O111	Result	Serogroup	Global result	Serogroup				
3892	0	/	-	-	-	-	-	/	-	/	0/5	-	-	-	-	-	/	-	/	0/5
3893			-	-	-	-	-	/	-	/		-	-	-	-	-	/	-	/	
3894			-	-	19.06	-	-	/	-	/		-	-	-	-	/	-	/		
3895			-	-	-	-	-	/	-	/		-	-	-	-	/	-	/		
3896			-	-	-	-	-	/	-	/		-	-	-	-	/	-	/		
3897	1	0,7	/	17.12	18.32	17.68	+	O157	+	O157	11/20	/	21.29	22.32	21.64	+	O157	+	O157	12/20
3898			/	-	-	-	-	/	-	/		/	23.30	24.30	23.60	+	O157	+	O157	
3899			/	-	-	-	-	/	-	/		/	-	-	-	-	/	-	/	
3900			/	16.48	18.06	17.02	+	O157	+	O157		/	-	-	-	-	/	-	/	
3901			/	6.84	18.45	17.23	+	O157	+	O157		/	20.50	21.85	21.12	+	O157	+	O157	
3902			/	16.52	17.83	16.73	+	O157	+	O157		/	-	-	-	-	/	-	/	
3903			/	-	-	-	-	/	-	/		/	-	-	-	-	/	-	/	
3904			/	-	-	-	-	/	-	/		/	22.06	22.98	22.29	+	O157	+	O157	
3905			/	-	-	-	-	/	-	/		/	22.68	23.68	23.19	+	O157	+	O157	
3906			/	-	-	-	-	/	-	/		/	21.88	22.84	22.00	+	O157	+	O157	
3907			/	16.05	17.39	16.30	+	O157	+	O157		/	-	-	-	-	/	-	/	
3908			/	-	-	-	-	/	-	/		/	-	-	-	-	/	-	/	
3909			/	-	-	-	-	/	-	/		/	-	-	-	-	/	-	/	
3910			/	18.94	19.99	19.29	+	O157	+	O157		/	22.41	23.28	22.59	+	O157	+	O157	
3911			/	16.38	17.45	16.56	+	O157	+	O157		/	20.58	21.96	21.13	+	O157	+	O157	
3912			/	17.01	18.28	17.36	+	O157	+	O157		/	21.26	22.26	21.67	+	O157	+	O157	
3913			/	19.19	20.34	19.41	+	O157	+	O157		/	20.13	21.07	20.33	+	O157	+	O157	
3914			/	-	-	-	-	/	-	/		/	22.08	23.09	22.33	+	O157	+	O157	
3915			/	17.43	18.88	17.75	+	O157	+	O157		/	21.46	22.72	21.07	+	O157	+	O157	
3916			/	17.22	18.79	17.79	+	O157	+	O157		/	-	-	-	-	/	-	/	
3917	2	7,5	/	16.99	18.40	17.34	+	O157	+	O157	5/5	/	18.97	20.43	19.39	+	O157	+	O157	5/5
3918			/	16.01	17.10	16.31	+	O157	+	O157		/	19.70	21.05	20.12	+	O157	+	O157	
3919			/	15.93	17.30	16.33	+	O157	+	O157		/	20.54	22.40	21.56	+	O157	+	O157	
3920			/	17.62	19.28	18.12	+	O157	+	O157		/	20.10	21.13	20.55	+	O157	+	O157	
3921			/	16.91	17.88	17.03	+	O157	+	O157		/	25.59	26.99	26.03	+	O157	+	O157	

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Appendix 6 - Sensitivity study: raw data

MEAT (25g)																									
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136 [♦]		Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC -																		Category	Type
						+ 225 ml BPW PW at 41.5°C, 10 h at 41.5°C ±1 °C (1/10)																ISO 16140 requirements BPW PW 41.5°C, 18 h at 41.5°C ± 1°C (1/10)			
				Final result PCR	Confirmation		Final result			Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Agreement		Final result			
Final result confirmation		Final result direct streaking			Final result alternative protocol							Final result all confirmatory tests													
Result	Sero- group	stx	stx & eae		Sero- group	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae				
2020	5300	Epaule de veau	Fresh veal meat	O26	+	O26	+	+	O26	+	+	+	+			+	+	+	+	PA	PA			1	a
2020	5301	Epaule de veau	Fresh veal meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	a
2020	5302	Côtes de porcs	Fresh pork meat	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	a
2020	5303	Côtes de porcs	Fresh pork meat	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	a
2020	5304	Epaule d'agneau	Fresh lamb meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	a
2020	5305	Epaule d'agneau	Fresh lamb meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	a
2020	5500	Filet de porcs	Fresh pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a
2020	5501	Escalope de veau	Fresh veal meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a
2020	5502	Côte de porcs	Fresh pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a
2020	5504	Souris d'agneau	Fresh lamb meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a
2020	5505	Filet de porcs à rôtir	Fresh pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a
2020	5506	Gigot d'agneau	Fresh lamb meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a
2020	5507	Steak haché de bœuf	Fresh ground beef	O157/ O26	+	O157/O26	+	+	O157/ O26	+	+	+	+			+(O157)*	+(O157)*	+	+	PA	PA			1	a
2020	5508	Steak haché de bœuf	Fresh ground beef	O157/ O26	+	O157/O26	+	+	O157/ O26	+	+	+	+			+(O26)*	+(O26)*	+	+	PA	PA			1	a
2020	5509	Steak haché de bœuf	Fresh ground beef	O157/ O26	+	O157/O26	+	+	O157/ O26	+	+	+	+			+(O26)*	+(O26)*	+	+	PA	PA			1	a
2020	5510	Steak haché de bœuf	Fresh ground beef	O157/ O26	+	O157/ O26	+	+	O157/ O26	+	+	+	+			+(O26)*	+(O26)*	+	+	PA	PA			1	a
2021	395	Viande bovine - Faux filet à griller	Fresh beef meat	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	/	-	1	a
2021	396	Côte de porc à griller	Fresh pork meat	stx (O111)	stx	O111	+	-	O111	+	-	+	-			+	-	+	-	PA	NA	/	-	1	a
2021	397	Jambon escalope de porc	Fresh pork meat	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	/	-	1	a

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

MEAT (25g)																											
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136*		Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC -																		Category	Type		
						+ 225 ml BPW PW at 41.5°C, 10 h at 41.5°C ±1 °C (1/10)																ISO 16140 requirements BPW PW 41.5°C, 18 h at 41.5°C ± 1°C (1/10)					
						Final result PCR	Confirmation		Final result			Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Agreement				Final result	
							Final result confirmation							Final result direct streaking	Final result alternative protocol		Final result all confirmatory tests										
Result	Sero-group	stx	stx & eae	Sero-group	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae					
2021	398	Poitrine de veau	Fresh veal meat	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	/	-	1	a		
2021	399	Gigot d'agneau en tranche	Fresh lamb meat	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	/	-	1	a		
2021	412	Viande bovine - Faux filet à griller	Fresh beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a		
2021	413	Steak haché à griller	Fresh ground beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a		
2021	414	Pavé de bœuf à griller	Fresh beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a		
2021	415	Poitrine veau	Fresh veal meat	O103	+	O103	+	+	O103	-	-	-	-			-	-	-	-	ND	ND	-	-	1	a		
2021	5488	Haché pur bœuf surgelé	Frozen ground beef	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	b		
2021	5489	Jarret et plat de côte de bœuf surgelé	Frozen beef trim	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	b		
2021	5490	Jarret et plat de côte de bœuf surgelé	Frozen beef trim	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	b		
2021	5491	Escalope de veau surgelée	Frozen veal meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	b		
2021	5492	Sauté de veau surgelé	Frozen veal meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b		
2021	5493	Escalope de veau surgelée	Frozen veal meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	b		
2021	5494	Côtes de porcs surgelées	Frozen pork meat	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	b		
2021	5495	Filet mignon de porc surgelé	Frozen pork meat	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	b		
2021	5496	Filet mignon de porc surgelé	Frozen pork meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	b		
2021	5497	Souris d'agneau surgelée	Frozen lamb meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	b		
2021	5498	Navarin d'agneau surgelé	Frozen lamb meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	b		
2021	855	Boulettes de veau surgelées	Frozen veal meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b		
2021	856	Escalope de veau surgelée	Frozen veal meat	stx	stx	/	+	-	/	+	-	-	-	+	-	+	-	+	-	PA	NA	/	-	1	b		
2021	857	Agneau navarin surgelé	Frozen lamb meat	-			-	-	/	+	-	-	-	+	-	+	-	+	-	PD	NA	/	-	1	b		
2021	858	Jarret d'agneau surgelé	Frozen lamb meat	O26	stx	/	+	-	/	+	-	+	-			+	-	+	-	PA	NA	/	-	1	b		
2021	859	Steak haché surgelé	Frozen ground beef	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	/	-	1	b		
2021	860	Côte de porc surgelée	Frozen pork meat	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	/	-	1	b		

MEAT (25g)																									
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										+ 225 ml BPW PW at 41.5°C, 10 h at 41.5°C ±1 °C (1/10)												ISO 16140 requirements BPW PW 41.5°C, 18 h at 41.5°C ± 1°C (1/10)			
				Final result PCR	Confirmation		Final result			Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Agreement		Final result			
					Final result confirmation							Final result direct streaking	Final result alternative protocol		Final result all confirmatory tests										
					Result	Sero-group	stx	stx & eae	Sero-group	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae		
2021	861	Boulettes de veau surgelées	Frozen veal meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b
2021	862	Tournedos surgelés	Frozen beef trim	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b
2021	863	Effeuillés de Charolais surgelés	Frozen beef trim	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b
2021	864	Steak haché surgelé	Frozen ground beef	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b
2021	865	Côte de porc échine surgelée	Frozen pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b
2021	866	Sauté de porc surgelé	Frozen pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b
2021	867	Côte de porc échine surgelée	Frozen pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b
2021	868	Agneau navarin surgelé	Frozen lamb meat	stx	stx	+	+	-	/	+	-	-	-	+	-	+(stx)*	-	+	-	PA	NA	/	-	1	b
2021	869	Jarret d'agneau surgelé	Frozen lamb meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b
2020	5306	Côtes de porcs marinées	Marinated pork meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	c
2020	5307	Côtes de porcs marinées	Marinated pork meat	O157	+	O157	+	+	O157	-	-	-	-			-	-	-	-	ND	ND	-	-	1	c
2020	5308	Pavé de veau à l'échalotte	Marinated veal meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	c
2020	5309	Pavé de veau à l'échalotte	Marinated veal meat	O103	+	O103	+	+	O103	-	-	-	-			-	-	-	-	ND	ND	-	-	1	c
2020	5310	Pavé d'agneau à la tomate	Marinated lamb meat	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	c
2020	5503	Pavé de veau à l'échalotte	Marinated veal meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c
2021	400	Pavés de rumsteck à l'échalotte	Marinated beef meat	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	/	-	1	c
2021	402	Côte de porc mexicain	Seasoned pork meat	stx (O111)	stx	O111	+	-	O111	-	-	-	-			-	-	-	-	ND	NA	-	-	1	c
2021	404	Tranche d'agneau à l'ail	Marinated lamb meat	stx	stx	/	+	-	/	+	-	+	-			+	-	+	-	PA	NA	/	-	1	c
2021	405	Rumsteck à l'échalotte	Marinated beef meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	c
2021	406	Steak haché de bœuf à l'oignon	Seasoned ground beef meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	c
2021	407	Viande hachée de bœuf à la bolognaise	Seasoned ground beef meat	O111	+	O111	+	+	O111	+	+	+	+			+	+	+	+	PA	PA			1	c
2021	408	Côte de porc mexicain	Seasoned pork meat	O26/ O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	c
2021	409	Haché de veau à la tomate	Seasoned ground veal meat	O26/ O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	c

MEAT (25g)																											
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														+ 225 ml BPW PW at 41.5°C, 10 h at 41.5°C ±1 °C (1/10)													
				Final result PCR	Confirmation		Final result			Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Agreement		Final result					
					Final result confirmation							Final result direct streaking		Final result alternative protocol		Final result all confirmatory tests											
					Result	Sero-group	stx	stx & eae	Sero-group	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae		
2021	410	Tranche d'agneau à l'ail	Marinated lamb meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	c		
2021	411	Tranche d'agneau à l'ail	Marinated lamb meat	O111	+	O111	+	+	O111	+	+	+	+			+	+	+	+	PA	PA			1	c		
2021	416	Bœuf haché à la bolognaise	Seasoned ground beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c		
2021	417	Côte de porc mexicain	Seasoned pork meat	stx	-	/	-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c		
2021	870	Veau à la tomate	Seasoned veal meat	stx	stx	+	+	-	/	+	-	-	-	+	-	+(stx)*	-	+	-	PA	NA	/	-	1	c		
2021	871	Steak à la tomate	Seasoned beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c		
2021	872	Carpaccio de bœuf huile d'olive citron	Marinated beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c		
2021	873	Côtes de porcs marinées	Marinated pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c		
2021	874	Palets de porc tomate basilic	Seasoned pork meat	-			-	-	/	-	+	-	-			-	-	-	-	NA	NA	-	-	1	c		
2021	875	Agneau mariné	Marinated lamb meat	-			-	-	/	-	+	-	-			-	-	-	-	NA	NA	-	-	1	c		

MEAT (25g)																													
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136*						Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC																		Category	Type
										After storage for 72 h at 5°C ± 3°C																			
				Final result PCR	Confirmation		Final result			BPW 72 h		Lysate 72 h		Confirmation						BPW 72 h				Lysate 72 h					
					Final result confirmation					Final result LAMP test		Final result LAMP test		Final result direct streaking			Final result alternative protocol			Final result all confirmatory tests			Final result NEOGEN MDA2 STEC		Agreement		Final result NEOGEN MDA2 STEC		
					Result	Sero-group	stx	stx & eae	Sero-group	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae		
2020	5300	Epaule de veau	Fresh veal meat	O26	+	O26	+	+	O26	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a
2020	5301	Epaule de veau	Fresh veal meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	a
2020	5302	Côtes de porcs	Fresh pork meat	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a
2020	5303	Côtes de porcs	Fresh pork meat	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a
2020	5304	Epaule d'agneau	Fresh lamb meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	a
2020	5305	Epaule d'agneau	Fresh lamb meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	a
2020	5507	Steak haché de bœuf	Fresh ground beef	O157/O26	+	O157/O26	+	+	O157/O26	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a
2020	5508	Steak haché de bœuf	Fresh ground beef	O157/O26	+	O157/O26	+	+	O157/O26	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a
2020	5509	Steak haché de bœuf	Fresh ground beef	O157/O26	+	O157/O26	+	+	O157/O26	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a
2020	5510	Steak haché de bœuf	Fresh ground beef	O157/O26	+	O157/O26	+	+	O157/O26	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a
2021	395	Viande bovine - Faux filet à griller	Fresh beef meat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	1	a
2021	396	Côte de porc à griller	Fresh pork meat	stx (O111)	stx	O111	+	-	O111	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	a
2021	397	Jambon escalope de porc	Fresh pork meat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	1	a
2021	398	Poitrine de veau	Fresh veal meat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	1	a
2021	399	Gigot d'agneau en tranche	Fresh lamb meat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	1	a
2021	415	Poitrine veau	Fresh veal meat	O103	+	O103	+	+	O103	-	-	-	-	-	-			-		-	-	ND	ND	-	-	ND	ND	1	a
2021	5488	Haché pur bœuf surgelé	Frozen ground beef	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b
2021	5489	Jarret et plat de côte de bœuf surgelé	Frozen beef trim	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	b
2021	5490	Jarret et plat de côte de bœuf surgelé	Frozen beef trim	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b
2021	5491	Escalope de veau surgelée	Frozen veal meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	b
2021	5492	Sauté de veau surgelé	Frozen veal meat	-			-	-	/																		1	b	
2021	5493	Escalope de veau surgelée	Frozen veal meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	b
2021	5494	Côtes de porcs surgelées	Frozen pork meat	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b

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MEAT (25g)																																
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136*						Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC																		Category	Type			
										After storage for 72 h at 5°C ± 3°C																						
				Final result PCR	Confirmation		Final result			BPW 72 h		Lysate 72 h		Confirmation						BPW 72 h				Lysate 72 h								
					Final result confirmation					Final result LAMP test		Final result LAMP test		Final result direct streaking			Final result alternative protocol			Final result all confirmatory tests			Final result NEOGEN MDA2 STEC		Agreement		Final result NEOGEN MDA2 STEC			Agreement		
					Result	Sero-group				stx	stx & eae	Sero-group	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx			stx & eae	stx	stx & eae
2021	5495	Filet mignon de porc surgelé	Frozen pork meat	O157	+		O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b					
2021	5496	Filet mignon de porc surgelé	Frozen pork meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	b			
2021	5497	Souris d'agneau surgelée	Frozen lamb meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	b			
2021	5498	Navarin d'agneau surgelé	Frozen lamb meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	b			
2021	856	Escalope de veau surgelée	Frozen veal meat	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	b			
2021	857	Agneau navarin surgelé	Frozen lamb meat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	1	b			
2021	858	Jarret d'agneau surgelé	Frozen lamb meat	O26	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	b			
2021	859	Steak haché surgelé	Frozen ground beef	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	1	b			
2021	860	Côte de porc surgelée	Frozen pork meat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	1	b			
2021	868	Agneau navarin surgelé	Frozen lamb meat	stx	stx	+	+	-	/	+	-	+	-	-	-	+	-	+	-	+	-	PA	NA	+	-	PA	NA	1	b			
2020	5306	Côtes de porcs marinées	Marinated pork meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c			
2020	5307	Côtes de porcs marinées	Marinated pork meat	O157	+	O157	+	+	O157	-	-	-	-	-	-			-	-	-	-	ND	ND	-	-	ND	ND	1	c			
2020	5308	Pavé de veau à l'échalotte	Marinated veal meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	c			
2020	5309	Pavé de veau à l'échalotte	Marinated veal meat	O103	+	O103	+	+	O103	-	-	-	-	-	-			-	-	-	-	ND	ND	-	-	ND	ND	1	c			
2020	5310	Pavé d'agneau à la tomate	Marinated lamb meat	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c			
2021	400	Pavés de rumsteck à l'échalotte	Marinated beef meat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	1	c			
2021	402	Côte de porc mexicain	Seasoned pork meat	stx (O111)	stx	O111	+	-	O111	-	-	-	-	-	-			-	-	-	-	ND	NA	-	-	ND	NA	1	c			
2021	404	Tranche d'agneau à l'ail	Marinated lamb meat	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	c			
2021	405	Rumsteck à l'échalotte	Marinated beef meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c			
2021	406	Steak haché de bœuf à l'oignon	Seasoned ground beef meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c			
2021	407	Viande hachée de bœuf à la bolognaise	Seasoned ground beef meat	O111	+	O111	+	+	O111	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c			
2021	408	Côte de porc mexicain	Seasoned pork meat	O26/O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c			
2021	409	Haché de veau à la tomate	Seasoned ground veal meat	O26/O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c			
2021	410	Tranche d'agneau à l'ail	Marinated lamb meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c			
2021	411	Tranche d'agneau à l'ail	Marinated lamb meat	O111	+	O111	+	+	O111	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c			
2021	416	Bœuf haché à la bolognaise	Seasoned ground beef meat	-			-	-	/																		1	c				

MEAT (25g)																													
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										After storage for 72 h at 5°C ± 3°C																			
				Final result PCR	Confirmation		Final result			BPW 72 h		Lysate 72 h		Confirmation						BPW 72 h				Lysate 72 h					
					Final result confirmation					Final result LAMP test	Final result LAMP test	Final result direct streaking			Final result alternative protocol			Final result all confirmatory tests			Final result NEOGEN MDA2 STEC	Agreement		Final result NEOGEN MDA2 STEC	Agreement				
					Result	Sero-group	stx	stx & eae	Sero-group	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae		
2021	417	Côte de porc mexicain	Seasoned pork meat	stx	-	/	-	-	/	-	-	-	-	-	-			-	-	-	-	NA	NA	-	-	NA	NA	1	c
2021	870	Veau à la tomate	Seasoned veal meat	stx	stx	+	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	c

MEAT (375 g)																									
Date	Sample N°	Product (French name)	Product	Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC																				Category	Type
				Reference method: ISO/TS 13136*																		ISO 16140 requirements BPW PW 41.5°C, 18h at 41.5 °C ± 1°C (1/10)			
				Final result PCR	Confirmation		Final result			Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Agreement		Final result			
					Final result confirmation							Final result direct streaking		Final result alternative protocol		Final result all confirmatory tests									
Result	Serogroup	stx	stx & eae		Serogroup	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae				
2021	2021	Viande charolaise à mijoter	Fresh beef meat	stx	stx	/	+	-	/	+	-	+	-			+	-	+	-	PA	NA	+	-	1	a
2021	2022	Viande bovine pièce à fondue	Fresh beef meat	stx	stx	/	+	-	/	+	-	+	-			+	-	+	-	PA	NA	+	-	1	a
2021	2023	Jambon de porc avec os à rôtir	Fresh pork meat	stx (O26)	stx	-	+	-	-	+	+	+	-			+	-	+	-	PA	PD _{FP(alt)}			1	a
2021	2024	Pointe de porc avec os à griller	Fresh pork meat	stx	stx	/	+	-	/	-	-	-	-			-	-	-	-	ND	NA	-	-	1	a
2021	2025	Blanquette de veau à mijoter	Fresh veal meat	stx	stx	/	+	-	/	+	+	+	-			+	-	+	-	PA	PD _{FP(alt)}	+	-	1	a
2021	2026	Selle d'agneau sans os à rôtir	Fresh lamb meat	stx (O145)	stx	-	+	-	-	+	+	-	-	-	-	-	-	-	-	PA _{FP(alt)}	PD _{FP(alt)}	+	+	1	a
2021	2061	Viande bovine pièce à brochette	Fresh beef meat	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	a
2021	2062	Viande bovine basse côte	Fresh beef meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	a
2021	2063	Viande bovine bourguignon	Fresh beef meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	a
2021	2064	Côte de veau	Fresh veal meat	O157	+	O157	+	+	O157	+	+	-	-	+	+	+	+	+	+	PA	PA			1	a
2021	2065	Escalope de veau	Fresh veal meat	O145	+	O145	+	+	O145	+	+	-	-	+	+	+	+	+	+	PA	PA			1	a
2021	2066	Escalope de veau	Fresh veal meat	O103	+	O103	+	+	O103	+	+	+	+			+	+	+	+	PA	PA			1	a
2021	2067	Côtes de porc échine	Fresh pork meat	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	a
2021	2068	Sauté de porc	Fresh pork meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	a
2021	2069	Rouelle de jambon avec os	Fresh pork meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	a
2021	2070	Tranche de gigot d'agneau	Fresh lamb meat	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	a
2021	2071	Gigot d'agneau à rôtir	Fresh lamb meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	a
2021	2072	Côte filet d'agneau à griller	Fresh lamb meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	a
2021	2422	Jarret de porc	Fresh pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a
2021	2423	Viande bovine rumsteak à griller	Fresh beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a
2021	2424	Haché de veau	Fresh ground veal meat	O103	stx	O103	+	-	O103	+	+	+	-			+(+*)	+(*) *(72h)	+	+	PA	PD	+	+	1	a
2021	2425	Blanquette de veau	Fresh veal meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a
2021	2426	Viande de porc	Fresh pork meat	stx	-	/	-	-	/	+	-	-	-	-	-	-	-	-	-	PD _{FP(alt)}	NA	-	-	1	a
2021	2427	Viande de porc	Fresh pork meat	-			-	-	/	+	-	-	-	-	-	-	-	-	-	PD _{FP(alt)}	NA	-	-	1	a
2021	2428	Gigot d'agneau	Fresh lamb meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	a

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MEAT (375 g)																									
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136*					Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC														Category	Type	
									+ 1125 ml BPW PW at 41.5°C, 10 h at 41.5°C±1°C (1/4)												ISO 16140 requirements BPW PW 41.5°C, 18h at 41.5 °C ± 1°C (1/10)				
				Final result PCR	Confirmation		Final result			Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Agreement		Final result			
					Final result confirmation							Final result direct streaking		Final result alternative protocol		Final result all confirmatory tests									
					Result	Serogroup	stx	stx & eae	Serogroup	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx			stx & eae
2021	2880	Haché de veau	Fresh ground veal meat	stx (O26)	stx	/	+	-	/	+	-	+	-			+	-	+	-	PA	NA	-	-	1	a
2021	3081	Noix de veau	Fresh veal meat	-			-	-	/	-	-	-				-	-	-	-	NA	NA			1	a
2021	1318	Haché de bœuf surgelé	Frozen beef meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	b
2021	1319	Effeuillés charolais surgelés	Frozen beef meat	-			-	-		+	+	+	+			+	+	+	+	PD	PD			1	b
2021	1320	Steak haché de bœuf surgelé	Frozen beef meat	O26/O145	+	O26	+	+	O26	-	+	-	-			-	-	-	-	ND	ND	-	-	1	b
2021	1321	Escalopes hachées de veau surgelées	Frozen ground veal meat	-			-	-		+	+	+	+			+	+	+	+	PD	PD			1	b
2021	1322	Sauté de veau surgelé	Frozen veal meat	O157	+	O157	+	+	O157	-	+	-	-			-	-	-	-	ND	ND	-	-	1	b
2021	1323	Sauté de veau surgelé	Frozen veal meat	O26/O111	+	O111	+	+	O111	+	+	+	+			+	+	+	+	PA	PA			1	b
2021	1324	Côtes de porcs marinées surgelées	Frozen marinated pork meat	O157/O145	+	O145	+	+	O145	-	-	-	-			-	-	-	-	ND	ND	-	-	1	b
2021	1325	Filet mignon de porc à la moutarde surgelé	Frozen marinated pork meat	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	b
2021	1326	Filet mignon de porc surgelé	Frozen pork meat	O26/O103	+	O103	+	+	O103	+	+	-	- +at 72 h			+	+	+	+	PA	PA			1	b
2021	1327	Souris d'agneau surgelée	Frozen lamb meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	b
2021	1328	Navarrin d'agneau surgelé	Frozen lamb meat	O26/O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	b
2021	1329	Cotelettes d'agneau surgelées	Frozen lamb meat	O26/O103	stx+ eae+ stx- eae-	-	+	+	-	+	+	-	- +at 72 h			+	+	+	+	PA	PA			1	b
2021	1838	Steaks hachés de boeuf surgelés	Frozen ground beef meat	stx	-	/	-	-	/	+	-	+	-			+	-	+	-	PD	NA	-	-	1	b
2021	1839	Viande hachée de bœuf surgelée	Frozen ground beef meat	stx	stx	/	+	-	/	+	-	+	-			+	-	+	-	PA	NA	+	-	1	b
2021	1840	Côte de porc échine surgelée	Frozen pork meat	stx (O145)	stx	/	+	-	-	+	-	+	-			+	-	+	-	PA	NA	+	-	1	b
2021	1841	Jarret de veau surgelé	Frozen veal meat	stx	stx	/	+	-	/	+	-	+	-			+	-	+	-	PA	NA	+	-	1	b
2021	1842	Jarret de veau surgelé	Frozen veal meat	stx (O157)	stx	-	+	-	-	-	-	-	-			-	-	-	-	ND	NA	-	-	1	b
2021	1844	Steaks hachés de boeuf surgelés	Frozen ground beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b

MEAT (375 g)																										
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							+ 1125 ml BPW PW at 41.5°C, 10 h at 41.5°C±1°C (1/4)																ISO 16140 requirements BPW PW 41.5°C, 18h at 41.5 °C ± 1°C (1/10)			
							Final result PCR	Confirmation		Final result			Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC					
				Final result confirmation		Final result direct streaking		Final result alternative protocol							Final result all confirmatory tests											
					Result	Serogroup	stx	stx & eae	Serogroup	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae			
2021	1845	Viande hachée de bœuf surgelée	Frozen ground beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b	
2021	1846	Côte de porc échine surgelée	Frozen pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b	
2021	1847	Jarret de veau surgelé	Frozen veal meat	stx	stx	/	+	-	/	+	-	-	-	-	-	-	-	-	-	PA _{FP(alt)}	NA	-	-	1	b	
2021	1848	Jarret de veau surgelé	Frozen veal meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b	
2021	1849	Tranches de collier d'agneau surgelé	Frozen lamb meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b	
2021	2429	Côtes de porc échine surgelées	Frozen pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b	
2021	2879	Sauté de veau surgelé	Frozen veal meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	b	
2021	1241	Steak haché de bœuf TexMex	Seasoned beef meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	c	
2021	1242	Boulettes de bœuf à l'orientale	Seasoned beef meat	-			-	-	/	+	+	-	-	-	-	-	-	-	PD _{FP(alt)}	PD _{FP(alt)}	-	-	1	c		
2021	1243	Pavé de bœuf à la mexicaine	Seasoned beef meat	O26	+	O26	+	+	O26	+	+	+	+			+	+	+	+	PA	PA			1	c	
2021	1244	Steak haché d'agneau aux tomates séchées	Seasoned lamb meat	O26/ O103	+	O103	+	+	O103	+	+	+	+			+	+	+	+	PA	PA			1	c	
2021	1245	Tajine d'agneau aux pruneaux amandes	Seasoned lamb meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	c	
2021	1246	Agneau à l'ail	Seasoned lamb meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	c	
2021	1247	Viennoise de veau	Seasoned veal meat	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	c	
2021	1248	Pavé de veau à l'échalotte	Seasoned veal meat	O26	+	O26	+	+	O26	+	+	+	+			+	+	+	+	PA	PA			1	c	
2021	1249	Boulettes de veau assaisonnées tomates	Seasoned veal meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	c	
2021	1250	Tranches de poitrine de porc saumurées marinées	Seasoned pork meat	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA			1	c	
2021	1251	Filet mignon à l'ail	Seasoned pork meat	O157/ O26/ O145	+	O157	+	+	O157	+	+	+	+			+	+	+	+	PA	PA			1	c	
2021	1252	Côtes de porc à la mexicaine	Seasoned pork meat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD			1	c	
2021	1632	Pavé de bœuf aux 3 poivres	Seasoned beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c	
2021	1633	Pièce de bœuf marinée au poivre	Marinated beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c	
2021	1634	Brochette de bœuf mexicaine	Marinated beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c	
2021	1635	Côte de porc basquaise	Marinated pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c	

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				Final result PCR	Confirmation		Final result			Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Agreement		Final result				
					Final result confirmation							Final result direct streaking		Final result alternative protocol		Final result all confirmatory tests										
					Result	Serogroup	stx	stx & eae	Serogroup	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae			stx
2021	1636	Côte de porc mexicaine	Marinated pork meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c	
2021	1637	Côte de porc provençale	Marinated pork meat	-			-	-	/	+	-	-	-	-			-	-	-	-	PD _{FP(alt)}	NA	-	-	1	c
2021	1638	Brochette de veau citron romarin	Marinated veal meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c	
2021	1639	Pavé de veau à l'échalotte	Seasoned veal meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c	
2021	1640	Tranche d'agneau à l'aïl	Seasoned lamb meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c	
2021	2016	Brochettes de boeuf à la provençale	Marinated beef meat	stx (O145)	stx	-	+	-	-	-	-	-	-			-	-	-	-	ND	NA	-	-	1	c	
2021	2017	Steak haché à l'oignon	Seasoned ground beef meat	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	-	-	1	c	
2021	2018	Côte de porc marinée à griller	Marinated pork meat	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	+	-	1	c	
2021	2019	Pavé de veau à l'échalotte	Seasoned veal meat	stx	stx	-	+	-	-	+	+	-	-	-	-	+(72h)	-	+	-	PA	PD _{FP(alt)}	-	-	1	c	
2021	2020	Pavé d'agneau à la tomate	Seasoned lamb meat	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	-	-	1	c	
2021	2407	Pavé de veau à l'échalotte	Seasoned veal meat	stx (O103)	stx	O103	+	-	O103	+	-	-	-	+	-	+	-	+	-	PA	NA	-	-	1	c	
2021	2408	Escalope de veau marinée	Marinated veal meat	stx	+	/	+	+	-	+	-	+	-			+	-	+	-	PA	ND	+	-	1	c	
2021	2409	Boulettes de bœuf à la provençale	Seasoned beef meat	stx (O103)	stx	O103	+	-	O103	+	-	+	-			+	-	+	-	PA	NA	-	-	1	c	

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				Final result PCR	Confirmation		Final result						BPW 72 h		Lysate 72 h		Confirmation						BPW 72 h				Lysate 72 h					
																																Final result LAMP test
					Result	Serogroup	stx	stx & eae	Serogroup	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae					
2021	2021	Viande charolaise à mijoter	Fresh beef meat	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	a			
2021	2022	Viande bovine pièce à fondue	Fresh beef meat	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	a			
2021	2023	Jambon de porc avec os à rôtir	Fresh pork meat	stx (O26)	stx	-	+	-	-	+	+	+	-	+	-			+	-	+	-	PA	PDFP(alt)	+	-	PA	NA	1	a			
2021	2024	Pointe de porc avec os à griller	Fresh pork meat	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	a			
2021	2025	Blanquette de veau à mijoter	Fresh veal meat	stx	stx	/	+	-	/	+	+	+	+	+	-			+	-	+	-	PA	PDFP(alt)	+	-	PA	PDFP(alt)	1	a			
2021	2026	Selle d'agneau sans os à rôtir	Fresh lamb meat	stx (O145)	stx	-	+	-	-	+	-	+	+	-	-	-	-	-	-	-	-	PAFP(alt)	NA	-	-	PAFP(alt)	PDFP(alt)	1	a			
2021	2061	Viande bovine pièce à brochette	Fresh beef meat	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a			
2021	2062	Viande bovine basse côte	Fresh beef meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a			
2021	2063	Viande bovine bourguignon	Fresh beef meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	a			
2021	2064	Côte de veau	Fresh veal meat	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a			
2021	2065	Escalope de veau	Fresh veal meat	O145	+	O145	+	+	O145	+	+	+	+	-	-	+(IMS)	+(IMS)	+	+	+	+	PA	PA	+	+	PA	PA	1	a			
2021	2066	Escalope de veau	Fresh veal meat	O103	+	O103	+	+	O103	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a			
2021	2067	Côtes de porc échine	Fresh pork meat	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a			
2021	2068	Sauté de porc	Fresh pork meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a			
2021	2069	Rouelle de jambon avec os	Fresh pork meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	a			
2021	2070	Tranche de gigot d'agneau	Fresh lamb meat	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	a			
2021	2071	Gigot d'agneau à rôtir	Fresh lamb meat	-			-	-	/	+	+	+	+	-	-	+(IMS)	+(IMS)	+	+	+	+	PD	PD	+	+	PD	PD	1	a			
2021	2072	Côte filet d'agneau à griller	Fresh lamb meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	a			
2021	2424	Haché de veau	Fresh ground veal meat	O103	stx	O103	+	-	O103	+	+	+	+	+	+			+	+	+	+	PA	PD	+	+	PA	PD	1	a			
2021	2426	Viande de porc	Fresh pork meat	stx	-	/	-	-	/	+	-	+	-	-	-	-	-	-	-	-	-	PDFP(alt)	NA	-	-	PDFP(alt)	NA	1	a			
2021	2427	Viande de porc	Fresh pork meat	-			-	-	/	+	-	+	-	-	-	-	-	-	-	-	-	PDFP(alt)	NA	-	-	PDFP(alt)	NA	1	a			
2021	2880	Haché de veau	Fresh ground veal meat	stx (O26)	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	a			
2021	1318	Haché de bœuf surgelé	Frozen beef meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b			

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

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										After storage for 72 h at 5°C ± 3°C																				
				Final result PCR	Confirmation		Final result			BPW 72 h		Lysate 72 h		Confirmation						BPW 72 h				Lysate 72 h						
																												Final result LAMP test		
					Result	Serogroup	stx	stx & eae	Serogroup	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae					
2021	1319	Effeuillés charolais surgelés	Frozen beef meat	-			-	-		+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	b	
2021	1320	Steak haché de bœuf surgelé	Frozen beef meat	O26/O145	+	O26	+	+	O26	-	-	-	-	-	-			-	-	-	-	ND	ND	-	-	ND	ND	1	b	
2021	1321	Escalopes hachées de veau surgelées	Frozen ground veal meat	-			-	-		+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	b	
2021	1322	Sauté de veau surgelé	Frozen veal meat	O157	+	O157	+	+	O157	-	-	-	-	-	-			-	-	-	-	ND	ND	-	-	ND	ND	1	b	
2021	1323	Sauté de veau surgelé	Frozen veal meat	O26/O111	+	O111	+	+	O111	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b	
2021	1324	Côtes de porcs marinées surgelées	Frozen marinated pork meat	O157/O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b	
2021	1325	Filet mignon de porc à la moutarde surgelé	Frozen marinated pork meat	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b	
2021	1326	Filet mignon de porc surgelé	Frozen pork meat	O26/O103	+	O103	+	+	O103	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b	
2021	1327	Souris d'agneau surgelée	Frozen lamb meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b	
2021	1328	Navarrin d'agneau surgelé	Frozen lamb meat	O26/O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b	
2021	1329	Côtelettes d'agneau surgelées	Frozen lamb meat	O26/O103	stx+ eae+ stx- eae-	-	+	+	-	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	b	
2021	1838	Steaks hachés de boeuf surgelés	Frozen ground beef meat	stx	-	/	-	-	/	+	-	+	-	-	-	-	-	-	-	-	-	PD _{FP(alt)}	NA	-	-	PD _{FP(alt)}	NA	1	b	
2021	1839	Viande hachée de bœuf surgelée	Frozen ground beef meat	stx	stx	/	+	-	/	+	-	+	-	-	-	-	-	-	-	-	PA _{FP(alt)}	NA	-	-	PA _{FP(alt)}	NA	1	b		
2021	1840	Côte de porc échine surgelée	Frozen pork meat	stx (O145)	stx	/	+	-	-	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	b	
2021	1841	Jarret de veau surgelé	Frozen veal meat	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	b	
2021	1842	Jarret de veau surgelé	Frozen veal meat	stx (O157)	stx	-	+	-	-	-	-	-	-					-	-	-	-	ND	NA	-	-	ND	NA	1	b	
2021	1847	Jarret de veau surgelé	Frozen veal meat	stx	stx	/	+	-	/	+	-	+	-	-	-	-	-	-	-	-	PA _{FP(alt)}	NA	-	-	PA _{FP(alt)}	NA	1	b		
2021	1241	Steak haché de bœuf TexMex	Seasoned beef meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c	
2021	1242	Boulettes de bœuf à l'orientale	Seasoned beef meat	-			-	-	/	+	+	+	+	-	-	-	-	-	-	-	PD _{FP(alt)}	PD _{FP(alt)}	-	-	PD _{FP(alt)}	PD _{FP(alt)}	1	c		
2021	1243	Pavé de bœuf à la mexicaine	Seasoned beef meat	O26	+	O26	+	+	O26	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c	
2021	1244	Steak haché d'agneau aux tomates séchées	Seasoned lamb meat	O26/O103	+	O103	+	+	O103	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c	

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					Final result confirmation					Final result LAMP test	Final result LAMP test	Final result direct streaking		Final result alternative protocol		Final result all confirmatory tests		Final result NEOGEN MDA2 STEC	Agreement		Final result NEOGEN MDA2 STEC	Agreement							
					Result	Serogroup	stx	stx & eae	Serogroup			stx	stx & eae	stx	stx & eae	stx	stx & eae		stx	stx & eae		stx	stx & eae	stx	stx & eae	stx	stx & eae		
2021	1245	Tajine d'agneau aux pruneaux amandes	Seasoned lamb meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	c
2021	1246	Agneau à l'ail	Seasoned lamb meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c
2021	1247	Viennoise de veau	Seasoned veal meat	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c
2021	1248	Pavé de veau à l'échalotte	Seasoned veal meat	O26	+	O26	+	+	O26	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c
2021	1249	Boulettes de veau assaisonnées tomates	Seasoned veal meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c
2021	1250	Tranches de poitrine de porc saumurées marinées	Seasoned pork meat	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c
2021	1251	Filet mignon à l'ail	Seasoned pork meat	O157/ O26/ O145	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	1	c
2021	1252	Côtes de porc à la mexicaine	Seasoned pork meat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	1	c
2021	1637	Côte de porc provençale	Marinated pork meat	-			-	-	/	+	-	+	-	-	-	-	-	-	-	-	-	PD _{FP(alt)}	NA	-	-	PD _{FP(alt)}	NA	1	c
2021	2016	Brochettes de boeuf à la provençale	Marinated beef meat	stx (O145)	stx	-	+	-	-	+/-/+	-/-/-	-/-/-	-/-/-	-	-	+	-	+	-	+	-	PA	NA	-	-	ND	NA	1	c
2021	2018	Côte de porc marinée à griller	Marinated pork meat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	1	c
2021	2019	Pavé de veau à l'échalotte	Seasoned veal meat	stx	stx	-	+	-	-	+	+	+	-	+	-			+	-	+	-	PA	PD _{FP(alt)}	+	-	PA	NA	1	c
2021	2020	Pavé d'agneau à la tomate	Seasoned lamb meat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	1	c
2021	2407	Pavé de veau à l'échalotte	Seasoned veal meat	stx (O103)	stx	O103	+	-	O103	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	1	c
2021	2408	Escalope de veau marinée	Marinated veal meat	stx	+	/	+	+	-	+	-	+	-	+	-			+	-	+	-	PA	ND	+	-	PA	ND	1	c
2021	2409	Boulettes de bœuf à la provençale	Seasoned beef meat	stx (O103)	stx	O103	+	-	O103	+	-	+	-	-	-	+	(IMS)	-	+	-	+	PA	NA	+	-	PA	NA	1	c

VEGETABLES																							
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136*					Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC - Vegetables 25g + 225ml BPW PW at 41.5°C, 18 h at 41.5°C ±1 °C (1/4)												Category	Type	
									Final result PCR	Confirmation		Final result	Final result LAMP test		Confirmation								Final result NEOGEN MDA2 STEC
				Final result confirmation		Final result direct streaking		Final result alternative protocol		Final result all confirmatory tests													
				Result	Serogroup	stx	stx & eae	Serogroup		stx	stx & eae		stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae			stx
2021	543	Graines germées - Alfalfa bio	Sprouted seeds (alfalfa)	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	a
2021	544	Graines germées - Alfalfa radis fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	a
2021	545	Graines germées - Alfalfa roquette bio	Sprouted seeds (Alfalfa arugula)	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	a
2021	546	Graines germées - Baby mungo bio	Sprouted seeds (baby mungo)	-			-	-	/	+	+	-	-	+	+	+	+	+	+	PD	PD	2	a
2021	547	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	-	-	-	-	-	-	-	-	-	-	NA	NA	2	a
2021	548	Graines germées - Alfalfa radis fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	a
2021	549	Graines germées - Alfalfa roquette bio	Sprouted seeds (Alfalfa arugula)	-			-	-	/	+	+	-	-	+	+	+	+	+	+	PD	PD	2	a
2021	551	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	a
2021	736	Graines germées - Alfalfa poireaux	Sprouted seeds (Alfalfa leeks)	-			-	-	/	+/+/+	+/+/+	-	-	-	-	-	-	-	-	PD FP(alt)	PD FP(alt)	2	a
2021	737	Graines germées - Alfalfa poireaux	Sprouted seeds (Alfalfa leeks)	-			-	-	/	+/-/-	+/-/-	-	-	-	-	+(IMS)	+(IMS)	+	+	PD	PD	2	a
2021	738	Graines germées - Alfalfa	Sprouted seeds (Alfalfa)	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	a
2021	739	Graines germées - Alfalfa radis fenouil	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	a
2021	740	Graines germées - Pousses de haricots mungo	Sprouted seeds (baby mungo)	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	a
2021	750	Graines germées - Pousses de haricots mungo	Sprouted seeds (baby mungo)	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	2	a
2021	1437	Graines germées - Haricots Mungo	Sprouted seeds (baby mungo)	O111	+	O111	+	+	O111	+	+	+	+			+	+	+	+	PA	PA	2	a
2021	1438	Graines germées - Alfalfa, poireaux, lentilles bio	Sprouted seeds (Alfalfa, leeks, lentils)	-			-	-	/	+	+	-	-	-	-	+(IMS)	+(IMS)	+	+	PD	PD	2	a
2021	1439	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	+	+	-	-	-	-	+(IMS)	+(IMS)	+	+	PD	PD	2	a
2021	1440	Graines germées - Alfalfa, roquette bio	Sprouted seeds (Alfalfa arugula)	-			-	-	/	+	+	-	-	+	+	+	+	+	+	PD	PD	2	a
2021	1441	Graines germées - Alfalfa, radis, fenouil bio		-			-	-	/	+	-	+	-	+	-	+	-	+	-	PD	NA	2	a
2021	1442	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	O157	-	/	-	-	/	+	+	+	+			+	+	+	+	PD	PD	2	a
2021	1443	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	+	+	-	-	+	-	+(IMS)	+(IMS)	+	+	PD	PD	2	a
2021	1444	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	a
2021	1445	Graines germées - Radis rose bio	Sprouted seeds (radish)	stx	-	/	-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	a
2021	1446	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	+	+	-	-	-	-	-	-	-	-	PD FP(alt)	PD FP(alt)	2	a
2021	1447	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	+	+	-	-	+	+	+	+	+	+	PD	PD	2	a
2021	2410	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	+	-	-	-	-	-	-	-	-	-	PD FP(alt)	NA	2	a
2021	2411	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	+	-	-	-	-	-	-	-	-	-	PD _F P(alt)	NA	2	a

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

VEGETABLES																							
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136*						Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC - Vegetables 25g											Category	Type	
										+ 225ml BPW PW at 41.5°C, 18 h at 41.5°C ±1 °C (1/4)													
				Final result PCR	Confirmation		Final result			Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Agreement			
					Final result confirmation							Final result direct streaking		Final result alternative protocol		Final result all confirmatory tests							
					Result	Serogroup	stx	stx & eae	Serogroup	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae		
2021	2412	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	+	-	-	-	-	-	-	-	-	PD FP(alt)	NA	2	a	
2021	2413	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	+	+	-	-	-	-	-	-	-	PD FP(alt)	PD FP(alt)	2	a	
2021	2414	Graines germées - Alfaf, poireaux, lentilles bio	Sprouted seeds (Alfalfa leeks lentils)	-			-	-	/	+	+	-	-	-	-	-	-	-	PD FP(alt)	PD FP(alt)	2	a	
2021	2415	Graines germées - Alfaf, poireaux, lentilles bio	Sprouted seeds (Alfalfa leeks lentils)	-			-	-	/	-	-	-	-			-	-	-	NA	NA	2	a	
2021	2927	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	stx (O103)	stx	O103	+	-	O103	+	+	+	-			+	-	+	PA	PD FP(alt)	2	a	
2021	2928	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	+	+	-	-	-	-	-	-	-	NA	NA	2	a	
2021	2929	Graines germées - Radis rose bio	Sprouted seeds (radish)	stx (O103)	stx	O103	+	-	O103	+	-	+	-			+	-	+	PA	NA	2	a	
2021	2930	Graines germées - Radis rose bio	Sprouted seeds (radish)	stx	stx	/	+	-	/	+	-	+	-			+	-	+	PA	NA	2	a	
2021	552	Chou Kale	Leafy green (kale cabbage)	-			-	-	/	+	+	+	+			+	+	+	PD	PD	2	b	
2021	553	Scarole	Leafy greens (escarole)	-			-	-	/	+	+	+	+			+	+	+	PD	PD	2	b	
2021	554	Chou chinois	Leafy greens (Chinese cabbage)	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	PA	PA	2	b	
2021	555	Feuilles d'épinards fraîches	Leafy greens (fresh spinach leaves)	-			-	-	/	+	+	+	+			+	+	+	PD	PD	2	b	
2021	556	Chou Kale	Leafy green (kale cabbage)	O145	+	O145	+	+	O145	-	-	-	-			-	-	-	ND	ND	2	b	
2021	557	Scarole	Leafy greens (escarole)	-			-	-	/	+	+	+	+			+	+	+	PD	PD	2	b	
2021	559	Feuilles d'épinards fraîches	Leafy greens (fresh spinach leaves)	stx (O111)	stx	O111	+	-	O111	-	-	-	-			-	-	-	ND	NA	2	b	
2021	560	Chou chinois	Leafy greens (Chinese cabbage)	-			-	-	/	-	-	-	-			-	-	-	NA	NA	2	b	
2021	741	Céleri branche	Leafy greens (celery branch)	O157	+	O157	+	+	O157	+	+	+	+			+	+	+	PA	PA	2	b	
2021	742	Céleri branche	Leafy greens (celery branch)	O26	+	O26	+	+	O26	-	-	-	-			-	-	-	ND	ND	2	b	
2021	743	Mâche	Leafy greens (celery branch)	-			-	-	/	+	+	+	+			+	+	+	PD	PD	2	b	
2021	744	Mâche	Leafy greens (corn salad)	O103	+	O103	+	+	O103	-	-	-	-			-	-	-	ND	ND	2	b	
2021	745	Laitue	Leafy greens (laitue)	stx (O111)	stx	O111	+	-	O111	+	-	+	-			+	-	+	PA	NA	2	b	
2021	746	Laitue	Leafy greens (laitue)	stx	-	/	-	-	/	+	-	+	-			+	-	+	PD	NA	2	b	
2021	1448	Salade sucrine	Leafy greens (sucrine salad)	stx	stx	/	+	-	/	+	-	+	-			+	-	+	PA	NA	2	b	
2021	1449	Roquette	Leafy greens (baby leaves)	-			-	-	/	+	-	+	-			+	-	+	PD	NA	2	b	
2021	1450	Epinards frais	Leafy greens (fresh spinach leaves)	stx	stx	/	+	-	/	+	-	+	-			+	-	+	PA	NA	2	b	
2021	1451	Roquette	Leafy greens (baby leaves)	-			-	-	/	-	-	-	-			-	-	-	NA	NA	2	b	
2021	1452	Epinards frais	Leafy greens (fresh spinach leaves)	-			-	-	/	-	-	-	-			-	-	-	NA	NA	2	b	
2021	1453	Salade sucrine	Leafy greens (Sucrine salad)	-			-	-	/	-	-	-	-			-	-	-	NA	NA	2	b	
2021	1454	Laitue	Leafy greens (laitue)	-			-	-	/	-	-	-	-			-	-	-	NA	NA	2	b	
2021	2416	Chou chinois	Leafy greens (Chinese cabbage)	stx	stx	/	+	-	/	+	-	+	-			+	-	+	PA	NA	2	b	
2021	2430	Salade frisée	Leafy greens (salad)	-			-	-	/	-	-	-	-			-	-	-	NA	NA	2	b	
2021	2431	Salade Scarole	Leafy greens (salad)	-			-	-	/	-	-	-	-			-	-	-	NA	NA	2	b	
2021	2432	Chou chinois	Leafy greens (Chinese cabbage)	-			-	-	/	-	-	-	-			-	-	-	NA	NA	2	b	
2021	561	Légumes vapeurs prêt à cuisiner	Cut mix vegetables ready-to-cook	O111	+	O111	+	+	O111	+	+	+	+			+	+	+	PA	PA	2	c	
2021	562	Champignons émincés prêt à cuisiner	Cut mushrooms ready-to-cook	-			-	-	/	-	-	-	-			-	-	-	NA	NA	2	c	

VEGETABLES																							
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										+ 225ml BPW PW at 41.5°C, 18 h at 41.5°C ±1 °C (1/4)													
				Final result PCR	Confirmation		Final result			Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Agreement			
					Final result confirmation							Final result direct streaking	Final result alternative protocol		Final result all confirmatory tests								
Result	Serogroup	stx	stx & eae	Serogroup	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae			
2021	563	Légumes vapeurs prêt à cuisiner	Cut mix vegetables ready-to-cook	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	2	c
2021	564	Mangue coupée prêt à déguster	Cut mango ready-to-eat	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD	2	c
2021	565	Ananas coupé prêt à déguster	Cut pineapple ready-to-eat	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	2	c
2021	747	Salade fraiche de 5 fruits coupés	Fresh cut fruits	O26	+	O26	+	+	O26	+	+	+	+			+	+	+	+	PA	PA	2	c
2021	748	Salade fraiche de fruits coupés	Fresh cut fruits	O103	+	O103	+	+	O103	-	-	-	-			-	-	-	-	ND	ND	2	c
2021	749	Morceaux d'ananas frais	Cut pineapple ready-to-eat	-			-	-	/	+	-	+	-			+	-	+	-	PD	NA	2	c
2021	751	Groseilles rouges	Red currants	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	c
2021	752	Groseilles rouges	Red currants	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	c
2021	753	Champignons de Paris frais coupés	Fresh cut mushrooms	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD	2	c
2021	754	Champignons de Paris frais coupés	Fresh cut mushrooms	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD	2	c
2021	756	Mélange de carottes betteraves râpées	Grated beet and carrots	stx	stx	/	+	-	/	+	-	+	-			+	-	+	-	PA	NA	2	c
2021	1236	Courge butternut en cube surgelés	Frozen cut butternut	O145	+	O145	+	+	O145	+	+	+	+			+	+	+	+	PA	PA	2	c
2021	1237	Oignons émincés surgelés	Frozen sliced onions	O157	+	O157	+	+	O157	-	-	-	-			-	-	-	-	ND	ND	2	c
2021	1238	Poireaux en rondelles surgelés	Frozen sliced leeks	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	c
2021	1239	Fruits exotiques surgelés	Frozen exotic fruits	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	c
2021	1240	Mélange de fruits rouges surgelés	Frozen berry mix	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	c
2021	2417	Mélange crudités (carottes, céleri, chou blanc)	Grated carrots, celery, cabbage	stx (O145)	stx	-	+	-	-	+	-	+	-			+	-	+	-	PA	NA	2	c
2021	2418	Chou rouge coupés en sachet	Cut cabbage	O111	+	O111	+	+	O111	+	+	+	+			+	+	+	+	PA	PA	2	c
2021	2419	Baby carottes en sachet	Baby carrots	-			-	-	/	+	+	+	+			+	+	+	+	PD	PD	2	c
2021	2420	Groseilles rouges	Currants	O26	+	O26	+	+	O26	+	+	+	+			+	+	+	+	PA	PA	2	c
2021	2421	Myrtilles	Blueberry	O111/O26	+	O111	+	+	O111	+	+	+	+			+	+	+	+	PA	PA	2	c
2021	2433	Chou rouge coupés en sachet	Cut cabbage	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	c
2021	2434	Baby carottes en sachet	Baby carrots	-			-	-	/	-	-	-	-			-	-	-	-	NA	NA	2	c

VEGETABLES (25 g)																													
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136 [♦]						Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC																		Category	Type
										After storage for 72 h at 5± 3°C																			
										Final result PCR	Confirmation		Final result ISO/TS 13136			BPW 72 h		Lysate 72 h		Confirmation						BPW 72 h			
				Final result confirmation		Final result LAMP test	Final result LAMP test	Final result direct streaking	Final result alternative protocol		Final result all confirmatory tests	Final result NEOGEN MDA2 STEC				Agreement		Final result NEOGEN MDA2 STEC	Agreement										
				Result	Sero-group								stx	stx & eae	Sero-group						stx	stx & eae	stx	stx & eae	stx	stx & eae	stx		
2021	543	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	-	-	-	-	-	-			-	-	-	-	NA	NA	-	-	NA	NA	2	a
2021	546	Graines germées - Baby mungo bio	Sprouted seeds (baby mungo)	-			-	-	/	+	+	+	+	-	-	+	+	+	+	+	+	PD	PD	+	+	PD	PD	2	a
2021	547	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	-	-	-	-	-	-			-	-	-	-	NA	NA	-	-	NA	NA	2	a
2021	548	Graines germées - Alfalfa radis fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/																			2	a
2021	549	Graines germées - Alfalfa roquette bio	Sprouted seeds (Alfalfa arugula)	-			-	-	/	+	+	+	+	-	-	+	+	+	+	+	+	PD	PD	+	+	PD	PD	2	a
2021	551	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/																			2	a
2021	736	Graines germées - Alfalfa poireaux	Sprouted seeds (Alfalfa leeks)	-			-	-	/	+	+	+	+	-	-	-	-	-	-	-	-	PD _{FP(alt)}	PD _{FP(alt)}	-	-	PD _{FP(alt)}	PD _{FP(alt)}	2	a
2021	737	Graines germées - Alfalfa poireaux	Sprouted seeds (Alfalfa leeks)	-			-	-	/	-	-	-	-	-	-			-	-	-	-	NA	NA	-	-	NA	NA	2	a
2021	738	Graines germées - Alfalfa	Sprouted seeds (Alfalfa)	-			-	-	/	-	-	-	-	-	-			-	-	-	-	NA	NA	-	-	NA	NA	2	a
2021	739	Graines germées - Alfalfa radis fenouil	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	-	-	-	-	-	-			-	-	-	-	NA	NA	-	-	NA	NA	2	a
2021	740	Graines germées - Pousses de haricots mungo	Sprouted seeds (baby mungo)	-			-	-	/	-	-	-	-	-	-			-	-	-	-	NA	NA	-	-	NA	NA	2	a
2021	750	Graines germées - Pousses de haricots mungo	Sprouted seeds (baby mungo)	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	2	a
2021	1437	Graines germées - Haricots Mungo	Sprouted seeds (baby mungo)	O111	+	O111	+	+	O111	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	2	a
2021	1438	Graines germées - Alfalfa, poireaux, lentilles bio	Sprouted seeds (Alfalfa, leeks, lentils)	-			-	-	/	+	+	+	+	-	-	-	-	+	+	+	+	PD	PD	+	+	PD	PD	2	a
2021	1439	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	+	+	+	+	-	-	-	-	+	+	+	+	PD	PD	+	+	PD	PD	2	a
2021	1440	Graines germées - Alfalfa, roquette bio	Sprouted seeds (Alfalfa arugula)	-			-	-	/	+	+	+	+	-	-	+	+	+	+	+	+	PD	PD	+	+	PD	PD	2	a
2021	1441	Graines germées - Alfalfa, radis, fenouil bio		-			-	-	/	+	-	+	-	+	-	+	-	+	-	+	-	PD	NA	+	-	PD	NA	2	a
2021	1442	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	O157	-	/	-	-	/	+	+	+	+	-	-	+	+	+	+	+	+	PD	PD	+	+	PD	PD	2	a

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

VEGETABLES (25 g)																														
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136*					Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC																		Category	Type		
									After storage for 72 h at 5± 3°C																					
				Final result PCR	Confirmation		Final result ISO/TS 13136			BPW 72 h		Lysate 72 h		Confirmation						BPW 72 h				Lysate 72 h						
					Final result confirmation					Final result LAMP test	Final result LAMP test	Final result direct streaking			Final result alternative protocol			Final result all confirmatory tests			Final result NEOGEN MDA2 STEC	Agreement		Final result NEOGEN MDA2 STEC	Agreement					
					Result	Sero-group	stx	stx & eae	Sero-group			stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx		stx & eae	st x		stx & eae	stx			stx & eae	st x
2021	1443	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	+	+	+	+	-	-	-	-	+	+	(IMS)	+	+	PD	PD	+	+	PD	PD	2	a
2021	1445	Graines germées - Radis rose bio	Sprouted seeds (radish)	stx	-	/	-	-	/	-	-	-	-	-	-			-	-	-	-	NA	NA	-	-	NA	NA	2	a	
2021	1446	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	+	+	+	+	-	-	-	-	-	-	-	-	PD _{FP(alt)}	PD _{FP(alt)}	-	-	PD _{FP(alt)}	PD _{FP(alt)}	2	a	
2021	1447	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	+	+	+	+	-	-	+	+	+	+	+	+	PD	PD	+	+	PD	PD	2	a	
2021	2410	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	+	-	+	-	-	-	-	-	-	-	-	-	PD _{FP(alt)}	NA	-	-	PD _{FP(alt)}	NA	2	a	
2021	2411	Graines germées - Alfalfa bio	Sprouted seeds (Alfalfa)	-			-	-	/	+	-	+	-	-	-	-	-	-	-	-	-	PD _{FP(alt)}	NA	-	-	PD _{FP(alt)}	NA	2	a	
2021	2412	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	+	-	+	-	-	-	-	-	-	-	-	-	PD _{FP(alt)}	NA	-	-	PD _{FP(alt)}	NA	2	a	
2021	2413	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA	-	-	NA	NA	2	a	
2021	2414	Graines germées - Alfalfa, poireaux, lentilles bio	Sprouted seeds (Alfalfa leeks lentils)	-			-	-	/	+	+	+	+	-	-	-	-	-	-	-	-	PD _{FP(alt)}	PD _{FP(alt)}	-	-	PD _{FP(alt)}	PD _{FP(alt)}	2	a	
2021	2927	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	stx (O103)	stx	O103	+	-	O103	+	+	+	+	+	-			+	-	+	-	PA	PD _{FP(alt)}	+	-	PA	PD _{FP(alt)}	2	a	
2021	2928	Graines germées - Alfalfa, radis, fenouil bio	Sprouted seeds (Alfalfa radish fennel)	-			-	-	/	+	+	+	+	-	-	-	-	-	-	-	-	PD _{FP(alt)}	PD _{FP(alt)}	-	-	PD _{FP(alt)}	PD _{FP(alt)}	2	a	
2021	2929	Graines germées - Radis rose bio	Sprouted seeds (radish)	stx (O103)	stx	O103	+	-	O103	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	2	a	
2021	2930	Graines germées - Radis rose bio	Sprouted seeds (radish)	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	2	a	
2021	552	Chou Kale	Leafy green (kale cabbage)	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	2	b	
2021	553	Scarole	Leafy greens (escarole)	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	2	b	
2021	554	Chou chinois	Leafy greens (chinese cabbage)	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	2	b	
2021	555	Feuilles d'épinards fraîches	Leafy greens (fresh spinach leaves)	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	2	b	
2021	556	Chou Kale	Leafy green (kale cabbage)	O145	+	O145	+	+	O145	-	-	-	-					-	-	-	-	ND	ND	-	-	ND	ND	2	b	
2021	557	Scarole	Leafy greens (escarole)	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	2	b	
2021	559	Feuilles d'épinards fraîches	Leafy greens (fresh spinach leaves)	stx (O111)	stx	O111	+	-	O111	-	-	-	-	-	-			-	-	-	-	ND	NA	-	-	ND	NA	2	b	
2021	741	Céleri branche	Leafy greens (celery branch)	O157	+	O157	+	+	O157	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	2	b	
2021	742	Céleri branche	Leafy greens (celery branch)	O26	+	O26	+	+	O26	-	-	-	-	-	-			-	-	-	-	ND	ND	-	-	ND	ND	2	b	
2021	743	Mâche	Leafy greens (celery branch)	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	2	b	
2021	744	Mâche	Leafy greens (corn salad)	O103	+	O103	+	+	O103	-	-	-	-							-	-	ND	ND	-	-	ND	ND	2	b	

VEGETABLES (25 g)																													
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136 [♦]						Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC																		Category	Type
										After storage for 72 h at 5± 3°C																			
				Final result PCR	Confirmation		Final result ISO/TS 13136			BPW 72 h		Lysate 72 h		Confirmation						BPW 72 h				Lysate 72 h					
					Final result confirmation					Final result LAMP test	Final result LAMP test	Confirmation						Final result NEOGEN MDA2 STEC	Agreement		Final result NEOGEN MDA2 STEC	Agreement							
												Final result direct streaking	Final result alternative protocol	Final result all confirmatory tests															
Result	Sero-group	stx	stx & eae	Sero-group	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	st x	stx & eae	stx	stx & eae	st x	stx & eae	stx	stx & eae					
2021	745	Laitue	Leafy greens (laitue)	stx (O111)	stx	O111	+	-	O111	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	2	b
2021	746	Laitue	Leafy greens (laitue)	stx	-	/	-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	2	b
2021	1448	Salade sucrine	Leafy greens (sucrine salad)	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	2	b
2021	1449	Roquette	Leafy greens(baby leaves)	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	2	b
2021	1450	Epinards frais	Leafy greens (fresh spinach leaves)	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	2	b
2021	2416	Chou chinois	Leafy greens (Chinese cabbage)	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	2	b
2021	561	Légumes vapeurs prêt à cuisiner	Cut mix vegetables ready-to-cook	O111	+	O111	+	+	O111	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	2	c
2021	563	Légumes vapeurs prêt à cuisiner	Cut mix vegetables ready-to-cook	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	2	c
2021	564	Mangue coupée prêt à déguster	Cut mango ready-to-eat	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	2	c
2021	565	Ananas coupé prêt à déguster	Cut pineapple ready-to-eat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	2	c
2021	747	Salade fraiche de 5 fruits coupés	Fresh cut fruits	O26	+	O26	+	+	O26	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	2	c
2021	748	Salade fraiche de fruits coupés	Fresh cut fruits	O103	+	O103	+	+	O103	-	-	-	-	-	-			-	-	-	-	ND	ND	-	-	ND	ND	2	c
2021	749	Morceaux d'ananas frais	Cut pineapple ready-to-eat	-			-	-	/	+	-	+	-	+	-			+	-	+	-	PD	NA	+	-	PD	NA	2	c
2021	751	Groseilles rouges	Red currants	-			-	-	/	-	-	-	-	-	-			-	-	-	-	NA	NA	-	-	NA	NA	2	c
2021	752	Groseilles rouges	Red currants	-			-	-	/	-	-	-	-	-	-			-	-	-	-	NA	NA	-	-	NA	NA	2	c
2021	753	Champignons de Paris frais coupés	Fresh cut mushrooms	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	2	c
2021	754	Champignons de Paris frais coupés	Fresh cut mushrooms	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	2	c
2021	756	Mélange de carottes betteraves râpées	Grated beet and carrots	stx	stx	/	+	-	/	+	-	+	-	+	-			+	-	+	-	PA	NA	+	-	PA	NA	2	c
2021	1236	Courge butternut en cube surgelés	Frozen cut butternut	O145	+	O145	+	+	O145	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	2	c
2021	1237	Oignons émincés surgelés	Frozen sliced onions	O157	+	O157	+	+	O157	-	-	-	-	-	-			-	-	-	-	ND	ND	-	-	ND	ND	2	c
2021	2417	Mélange crudités (carottes, céleri, chou blanc)	Grated carrots, celery, cabbage	stx (O145)	stx	-	+	-	-	+	-	+	-	-	-	+	-	+	-	+	-	PA	NA	+	-	PA	NA	2	c
2021	2418	Chou rouge coupés en sachet	Cut cabbage	O111	+	O111	+	+	O111	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	2	c
2021	2419	Baby carottes en sachet	Baby carrots	-			-	-	/	+	+	+	+	+	+			+	+	+	+	PD	PD	+	+	PD	PD	2	c
2021	2420	Groseilles rouges	Currants	O26	+	O26	+	+	O26	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	2	c

VEGETABLES (25 g)																													
Date	Sample N°	Product (French name)	Product	Reference method: ISO/TS 13136♦						Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC																		Category	Type
										After storage for 72 h at 5± 3°C																			
				Final result PCR	Confirmation		Final result ISO/TS 13136			BPW 72 h		Lysate 72 h		Confirmation						BPW 72 h				Lysate 72 h					
					Final result confirmation					Final result LAMP test	Final result LAMP test	Confirmation			Final result NEOGEN MDA2 STEC	Agreement		Final result NEOGEN MDA2 STEC	Agreement										
Result	Sero-group	stx	stx & eae		Sero-group	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	st x	stx & eae	stx	stx & eae	st x	stx & eae	stx	stx & eae				
2021	2421	Myrtilles	Blueberry	O111/O26	+	O111	+	+	O111	+	+	+	+	+	+			+	+	+	+	PA	PA	+	+	PA	PA	2	c



Appendix 7 - RLOD: raw data

Matrix : Chilled pork meat
Test portion: 25g
Strain : *E. coli* O145:H28 092-4
stx1+ / stx2+ / eae+
Aerobic mesophilic flora : 7.5 x 10⁶ CFU/g
48 h at 3°C ± 2°C

Sample N°	Level	Contamination level (CFU/Sample)	Reference method: ISO/TS 13136♦							Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC + 225 ml BPW pre-warmed (41.5°C) - 10 h at 41.5 C ± 1°C (1/10)												
			Final result PCR	Confirmation		Final result ISO/TS 13136			Positive/Total stx	Positive/Total stx & eae	Final result LAMP test		Confirmation				Final result NEOGEN MDA2 STEC		Positive/ Total stx	Positive/ Total stx & eae		
				Final result confirmation									Final result direct streaking		Final result alternative protocol						Final result all confirmatory tests	
				Result	Serogroup	stx	stx & eae	Serogroup			stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae			stx	stx & eae
596	0	/	-			-	-	/	0/5	0/5	-	-	-	-			-	-	-	-	0/5	0/5
597			-			-	-	/			-	-	-	-			-	-	-	-		
598			-			-	-	/			-	-	-	-			-	-	-	-		
599			-			-	-	/			-	-	-	-			-	-	-	-		
600			-			-	-	/			-	-	-	-			-	-	-	-		
621	1	0.9	-			-	-	/	0/20	0/20	-	-	-	-			-	-	-	-	12/20	11/20
622			-			-	-	/			-	-	-	-			-	-	-	-		
623			-			-	-	/			+	+	+	+			+	+	+	+		
624			-			-	-	/			-	-	-	-			-	-	-	-		
625			-			-	-	/			-	-	-	-			-	-	-	-		
626			-			-	-	/			+	+	+	+			+	+	+	+		
627			-			-	-	/			+	+	+	+			+	+	+	+		
628			-			-	-	/			+	+	+	+			+	+	+	+		
629			-			-	-	/			+	+	+	+			+	+	+	+		
630			-			-	-	/			-	-	-	-			-	-	-	-		
631			-			-	-	/			+	+	+	+			+	+	+	+		
632			-			-	-	/			+/-/-	-/-/-	+	+			+	-	-	-		
633			-			-	-	/			-	-	-	-			-	-	-	-		
634			-			-	-	/			+	+	+	+			+	+	+	+		
635			-			-	-	/			+	+	+	+			+	+	+	+		
636			-			-	-	/			-	-	-	-			-	-	-	-		
637			-			-	-	/			+	+	+	+			+	+	+	+		
638			-			-	-	/			-	-	-	-			-	-	-	-		
639			-			-	-	/			+	+	+	+			+	+	+	+		
640			-			-	-	/			+	+	+	+			+	+	+	+		
641	2	2.7	-			-	-	/	0/5	0/5	+	+	+	+			+	+	+	+	5/5	5/5
642			-			-	-	/			+	+	+	+			+	+	+	+		
643			-			-	-	/			+	+	+	+			+	+	+	+		
644			-			-	-	/			+	+	+	+			+	+	+	+		
645			-			-	-	/			+	+	+	+			+	+	+	+		

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)



Matrix : Chilled pork meat
Test portion: 25g
Strain : *E. coli* O145:H28 092-4
stx1+ / stx2+ / eae+
Aerobic mesophilic flora : 6.5 x 10⁶ CFU/g
48 h at 3°C ± 2°C

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦							Alternative method : NEOGEN® Molecular Detection Assay 2 - STEC + 225ml BPW pre-warmed (41.5°C) - 10 h at 41.5°C ± 1°C (1/10)												
			Final result PCR	Confirmation		Final result ISO/TS 13136			Positive/Total stx	Positive/Total stx & eae	Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Positive/Total stx	Positive/Total stx & eae
				Final result confirmation									Final result direct streaking		Final result alternative protocol		Final result all confirmatory tests					
				Result	Serogroup	stx	stx & eae	Serogroup			stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae		
1807	0	/	-			-	-	/	0/5	0/5	-	-	-	-		-	-	-	-	0/5	0/5	
1808			-			-	-	/			-	-	-	-		-	-	-	-			
1809			-			-	-	/			-	-	-	-		-	-	-	-			
1810			-			-	-	/			-	-	-	-		-	-	-	-			
1811			-			-	-	/			-	-	-	-		-	-	-	-			
1812	1	4.3	O145	+	O145	+	+	O145	5/20	5/20	+	+	+	+		+	+	+	+	20/20	20/20	
1813			O145	+	O145	+	+	O145			+	+	+	+		+	+	+	+			
1814			-			-	-	/			+	+	+	+		+	+	+	+			
1815			stx	-	-	-	-	/			+	+	+	+		+	+	+	+			
1816			O145	+	O145	+	+	O145			+	+	+	+		+	+	+	+			
1817			-			-	-	/			+	+	+	+		+	+	+	+			
1818			O145	+	O145	+	+	O145			+	+	+	+		+	+	+	+			
1819			-			-	-	/			+	+	+	+		+	+	+	+			
1820			-			-	-	/			+	+	+	+		+	+	+	+			
1821			-			-	-	/			+	+	+	+		+	+	+	+			
1822			-			-	-	/			+	+	+	+		+	+	+	+			
1823			stx	-	-	-	-	/			+	+	+	+		+	+	+	+			
1824			-			-	-	/			+	+	+	+		+	+	+	+			
1825			-			-	-	/			+	+	+	+		+	+	+	+			
1826			-			-	-	/			+	+	+	+		+	+	+	+			
1827			-			-	-	/			+	+	+	+		+	+	+	+			
1828			O145	+	O145	+	+	O145			+	+	+	+		+	+	+	+			
1829			-			-	-	/			+	+	+	+		+	+	+	+			
1830			-			-	-	/			+	+	+	+		+	+	+	+			
1831			-			-	-	/			+	+	+	+		+	+	+	+			
1832	2	7.0	-			-	-	/	2/5	2/5	+	+	+	+		+	+	+	+	5/5	5/5	
1833			-			-	-	/			+	+	+	+		+	+	+	+			
1834			-			-	-	/			+	+	+	+		+	+	+	+			
1835			O145			+	+	O145			+	+	+	+		+	+	+	+			
1836			O145			+	+	O145			+	+	+	+		+	+	+	+			

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)



Matrix : Chilled pork meat (Roast pork)

Test portion: 25g

Strain : *E. coli* O145:H28 092-4

stx1+ / stx2+ / eae+

Aerobic mesophilic flora : 5.3 x 10⁵ CFU/g

48 h at 3°C ± 2°C

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦						Alternative method : NEOGEN® Molecular Detection Assay 2 - STEC + 225 ml BPW pre-warmed (41.5°C) - 10 h at 41.5 ± 1°C (1/10)													
			Final result PCR	Confirmation		Final result ISO/TS 13136			Positive/ Total stx	Positive/ Total stx & eae	Final result LAMP test		Confirmation						Final result NEOGEN MDA2 STEC		Positive/ Total stx	Positive/ Total stx & eae
				Final result confirmation									Final result direct streaking		Final result alternative protocol		Final result all confirmatory tests					
				Result	Serogroup	stx	stx & eae	Serogroup			stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae		
3082	1	/	-			-	-	/	0/5	0/5	-	-	-	-	-	-	-	-	-	-	0/5	0/5
3083			-			-	-	/			-	-	-	-	-	-	-	-	-	-		
3084			-			-	-	/			-	-	-	-	-	-	-	-	-	-		
3085			-			-	-	/			-	-	-	-	-	-	-	-	-	-		
3086			-			-	-	/			-	-	-	-	-	-	-	-	-	-		
3087	2	2.4	O145	+	O145	+	+	O145	3/20	3/20	+	+	+	+	-	-	+	+	+	+	13/20	13/20
3088			-			-	-	/			+	+	+	+	-	-	+	+	+	+		
3089			-			-	-	/			+	+	+	+	+	+	+	+	+	+		
3090			-			-	-	/			-	-	-	-	-	-	-	-	-	-		
3091			-			-	-	/			+	+	-	-	+(IMS)	+(IMS)	+	+	+	+		
3092			-			-	-	/			+	+	+	+	+	+	+	+	+	+		
3093			-			-	-	/			-	-	-	-	+	+	-	-	-	-		
3094			-			-	-	/			+	+	+	+	+	+	+	+	+	+		
3095			-			-	-	/			+	+	+	+	+	+	+	+	+	+		
3096			-			-	-	/			-	-	-	-	-	-	-	-	-	-		
3097			-			-	-	/			-	-	-	-	+	+	-	-	-	-		
3098			-			-	-	/			+	+	+	+	+	+	+	+	+	+		
3099			-			-	-	/			-	-	-	-	-	-	-	-	-	-		
3100			O145	+	O145	+	+	O145			-	-	-	-	+	+	-	-	-	-		
3101			-			-	-	/			+	+	+	+	+	+	+	+	+	+		
3102			-			-	-	/			+	+	+	+	-	-	+	+	+	+		
3103			-			-	-	/			+	+	+	+	+	+	+	+	+	+		
3104			-			-	-	/			-	-	-	-	-	-	-	-	-	-		
3105			O145	+	O145	+	+	O145			+	+	+	+	+	+	+	+	+	+		
3106			-			-	-	/			+	+	+	+	+	+	+	+	+	+		
3107	3	9.2	O145	+	O145	+	+	O145	5/5	5/5	+	+	+	+	+	+	+	+	+	+	5/5	5/5
3108			O145	+	O145	+	+	O145			+	+	+	+	+	+	+	+	+			
3109			O145	+	O145	+	+	O145			+	+	+	+	+	+	+	+	+			
3110			O145	+	O145	+	+	O145			+	+	+	+	+	+	+	+	+			
3111			O145	+	O145	+	+	O145			+	+	+	+	+	+	+	+	+			

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)



Matrix : Frozen ground beef
Test portion: 375 g
Strain : *E. coli* O157:H7 Ad683
stx1- / stx2+ / eae+
Aerobic mesophilic flora : 3.8 x 10³ CFU/g
2 weeks at -20°C

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦						Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC + 1125 ml BPW Pre-warmed (41.5°C) - 10 h at 41.5 ± 1°C (1/10)										
			Confirmation		Final result ISO/TS 13136			Positive/Total stx	Positive/Total stx&eae	Final result LAMP test		Confirmation				Final result NEOGEN MDA2 STEC		Positive/Total stx	Positive/Total stx & eae
												Final result confirmation		Final result direct streaking					
			Result	Serogroup						stx	stx & eae	Serogroup	stx	stx & eae	stx	stx & eae	stx		
1427	0	/			-	-	/	0/5	0/5	-	-	-	-	-	-	-	-	0/5	0/5
1428					-	-	/			-	-	-	-	-	-	-	-		
1429					-	-	/			-	-	-	-	-	-	-	-		
1430					-	-	/			-	-	-	-	-	-	-	-		
1431					-	-	/			-	-	-	-	-	-	-	-		
1455	1	1.1	+	O157	+	+	O157	14/20	14/20	-	-	-	-	-	-	-	-	12/20	12/20
1456			+	O157	+	+	O157			-	-	-	-	-	-	-	-		
1457			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1458					-	-	/			+	+	+	+	+	+	+	+		
1459			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1460					-	-	-			+	+	+	+	+	+	+	+		
1461			+	O157	+	+	O157			-	-	-	-	-	-	-	-		
1462					-	-	/			+	+	+	+	+	+	+	+		
1463					-	-	/			-	-	-	-	-	-	-	-		
1464			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1465			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1466			+	O157	+	+	O157			-	-	-	-	-	-	-	-		
1467			+	O157	+	+	O157			-	-	-	-	-	-	-	-		
1468			+	O157	+	+	O157			-	-	-	-	-	-	-	-		
1469			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1470			-	/	-	-	/			+	+	+	+	+	+	+	+		
1471			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1472			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1473			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1474					-	-	/			-	-	-	-	-	-	-	-		
1432	2	5.0	+	O157	+	+	O157	5/5	5/5	+	+	+	+	+	+	+	+	5/5	5/5
1433			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1434			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1435			+	O157	+	+	O157			+	+	+	+	+	+	+	+		
1436			+	O157	+	+	O157			+	+	+	+	+	+	+	+		

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)



Matrix : Cut vegetables (Fresh Baby carotts)
Test portion: 25g
Strain : *E. coli* O103 Ad3169
stx1+ / stx2- / eae+
Aerobic mesophilic flora : 1.2 x 10⁶ CFU/g
48 h at 3°C ± 2°C

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦				Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC + 225 ml BPW Pre-warmed (41.5°C) - 18 h at 41.5 ± 1°C (1/10)											
			Final result PCR	Final result ISO/TS 13136			Positive/Total stx	Positive/Total stx&eae	Final result LAMP test		Confirmation				Final result NEOGEN MDA2 STEC		Positive/Total stx	Positive/Total stx & eae
				stx	stx & eae	Serogroup					Final result direct streaking		Final result all confirmatory tests					
				stx	stx & eae	Serogroup			stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae		
1088	0	/	-	-	-	/	0/5	0/5	-	-	-	-	-	-	-	-	0/5	0/5
1089			-	-	-	/			-	-	-	-	-	-	-			
1090			-	-	-	/			-	-	-	-	-	-	-			
1091			-	-	-	/			-	-	-	-	-	-	-			
1092			-	-	-	/			-	-	-	-	-	-	-			
1093	1	1.2	O103	+	+	O103	10/20	10/20	-	-	-	-	-	-	-	-	12/20	12/20
1094			O103	+	+	O103			+	+	+	+	+	+	+			
1095			O103	+	+	O103			+	+	+	+	+	+	+			
1096			O103	+	+	O103			-	-	-	-	-	-	-			
1097			-	-	-	/			-	-	-	-	-	-	-			
1098			O103	+	+	O103			+	+	+	+	+	+	+			
1099			O103	+	+	O103			-	-	-	-	-	-	-			
1100			O103	+	+	O103			-	-	-	-	-	-	-			
1101			-	-	-	/			+	+	+	+	+	+	+			
1102			-	-	-	/			+	+	+	+	+	+	+			
1103			-	-	-	/			-	-	-	-	-	-	-			
1104			-	-	-	/			+	+	+	+	+	+	+			
1105			-	-	-	/			+	+	+	+	+	+	+			
1106			O103	+	+	O103			+	+	+	+	+	+	+			
1107			-	-	-	/			+	+	+	+	+	+	+			
1108			-	-	-	/			+	+	+	+	+	+	+			
1109			-	-	-	/			+	+	+	+	+	+	+			
1110			O103	+	+	O103			-	-	-	-	-	-	-			
1111			O103	+	+	O103			-	-	-	-	-	-	-			
1112			-	-	-	/			+	+	+	+	+	+	+			
1113	2	6.5	O103	+	+	O103	3/5	3/5	+	+	+	+	+	+	+	+	5/5	5/5
1114			-	-	-	/			+	+	+	+	+	+	+			
1115			O103	+	+	O103			+	+	+	+	+	+	+			
1116			-	-	-	/			+	+	+	+	+	+	+			
1117			O103	+	+	O103			+	+	+	+	+	+	+			

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)



Matrix : Tomatoes
Test portion: 25g
Strain : *E. coli* O113:H21 STEC 19-50
stx1- / stx2+ / eae-
Aerobic mesophilic flora : 1.5 10⁴ CFU/g
48 h at 3°C ± 2°C

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136*					Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC + 225 ml BPW Pre-warmed (41.5°C) - 18 h at 41.5 ± 1°C (1/10)										
			Final result - PCR	Confirmation		Final result ISO/TS 13136		Positive/Total	Final result LAMP test		Confirmation				Final result NEOGEN MDA2 STEC		Positive/Total stx	Positive/Total stx & eae
				Final result confirmation							Final result direct streaking		Final result all confirmatory tests					
				Result	Serogroup	stx	Serogroup		stx	stx & eae	stx	stx & eae	stx	stx & eae	stx	stx & eae		
800	0	/	-			-	/	0/5	-	-	-	-		-	-	0/5	0/5	
801			-			-	/		-	-	-	-		-	-			
802			-			-	/		-	-	-	-		-	-			
803			-			-	/		-	-	-	-		-	-			
804			-			-	/		-	-	-	-		-	-			
944	1	0.6	stx	stx	/	+	/	10/20	+	-	+	-	+	-	+	-	14/20	0/20
945			-			-	/		-	-	-	-		-	-			
946			stx	stx	/	+	/		+	-	+	-	+	-	+	-		
947			stx	stx	/	+	/		+	-	+	-	+	-	+	-		
948			stx	stx	/	+	/		+	-	+	-	+	-	+	-		
949			-			-	/		+	-	+	-	+	-	+	-		
950			-			-	/		+	-	+	-	+	-	+	-		
951			-			-	/		+	-	+	-	+	-	+	-		
952			stx	stx	/	+	/		+	-	+	-	+	-	+	-		
953			stx	stx	/	+	/		-	-	-	-		-	-	-		
954			-			-	/		-	-	-	-		-	-	-		
955			stx	stx	/	+	/		-	-	-	-		-	-	-		
956			-			-	/		+	-	+	-	+	-	+	-		
957			-			-	/		+	-	+	-	+	-	+	-		
958			stx	stx	/	+	/		-	-	-	-		-	-	-		
959			stx	stx	/	+	/		+	-	+	-	+	-	+	-		
960			-			-	/		+	-	+	-	+	-	+	-		
961			-			-	/		+	-	+	-	+	-	+	-		
962			stx	stx	/	+	/		-	-	-	-		-	-	-		
963			-			-	/		+	-	+	-	+	-	+	-		
964	2	3.5	stx	stx	/	+	/	5/5	+	-	+	-	+	-	+	-	5/5	0/5
965			stx	stx	/	+	/		+	-	+	-	+	-	+	-		
966			stx	stx	/	+	/		+	-	+	-	+	-	+	-		
967			stx	stx	/	+	/		+	-	+	-	+	-	+	-		
968			stx	stx	/	+	/		+	-	+	-	+	-	+	-		

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)



Appendix 8 - Inclusivity and exclusivity: raw data

INCLUSIVITY															
N°	Strain	Serogroup	Reference	Origin	stx1	stx2	eae	Inoculation level CFU/225ml	Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen BPW pre-warmed 41.5°C-10h at 41,5°C						
									LAMP test		Confirmation		LAMP test on typical colony		
									stx	eae	TBX	CH-STEC	Plate	stx	eae
1	<i>Escherichia coli</i>	O26	Ad1741	Raw milk cheese	+	-	+	20	+	+	+(small and green)	+	CH STEC	+	+
2	<i>Escherichia coli</i>	O26	Ad2298	Dairy product	+	-	+	20	+	+	+	+	CH STEC	+	+
3	<i>Escherichia coli</i>	O26	Ad2303	Raw milk cheese	-	+	+	23	+	+	+	+	CH STEC	+	+
4	<i>Escherichia coli</i>	O26	Ad2671	Dairy product	-	+	+	23	+	+	+	+	CH STEC	+	+
5	<i>Escherichia coli</i>	O26:H11	1377-138 LOT 3	Meat	-	+	+	20	+	+	+	+	CH STEC	+	+
6	<i>Escherichia coli</i>	O26:H11	déc-62	Meat	+ a	-	+	18	+	+	+	+	CH STEC	+	+
7	<i>Escherichia coli</i>	O26:H11	1311-12	Cream	-	+(a)	+	33	+	+	+	+	CH STEC	+	+
8	<i>Escherichia coli</i>	O26:H11	375-122	Cheese	+	+(c,d)	+	28	+	+	+	+	CH STEC	+	+
9	<i>Escherichia coli</i>	O26:H11	14-53	Meat	+	-	+	18	+	+	+	+	CH STEC	+	+
10	<i>Escherichia coli</i>	O26	Ad3109	Veal meat	+	-	+	17	+	+	+	+	CH STEC	+	+
11	<i>Escherichia coli</i>	O103	Ad1772	Clinic	+	-	+	23	+	+	+(white with green center)	st	TBX	+	+
12	<i>Escherichia coli</i>	O103:H2	Ad1773	Cheese	+	+	+	42	+	+	+	+	CH STEC	+	+
13	<i>Escherichia coli</i>	O103:H2	1144	Dairy product	+	-	+	18	+	+	+	+	CH STEC	+	+
14	<i>Escherichia coli</i>	O103:H2	821-76	Dairy product	+	+	+	23	+	+	+	+	CH STEC	+	+
15	<i>Escherichia coli</i>	O103:H2	56-12	Meat	+	-	+	16	+	+	+(small)	st	TBX	+	+



INCLUSIVITY															
N°	Strain	Serogroup	Reference	Origin	stx1	stx2	eae	Inoculation level CFU/225ml	Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen BPW pre-warmed 41.5°C-10h at 41,5°C						
									LAMP test		Confirmation		LAMP test on typical colony		
									stx	eae	TBX	CH-STEC	Plate	stx	eae
16	<i>Escherichia coli</i>	O103:H2	262-03-18-1	Meat	-	+	+	29	+	+	+	st	TBX	+	+
17	<i>Escherichia coli</i>	O103:H2	mars-35	Meat	+ a	-	+	25	+	+	+	+	CH STEC	+	+
18	<i>Escherichia coli</i>	O103:H2	72-11	Meat	+	-	+	21	+	+	+	+	CH STEC	+	+
19	<i>Escherichia coli</i>	O103	Ad2847	Cheese	+	-	+	18	+	+	+	+	CH STEC	+	+
20	<i>Escherichia coli</i>	O103:H2	V92-362	Meat	+	-	+	18	+	+	+	+	CH STEC	+	+
21	<i>Escherichia coli</i>	O111:H8	Ad511	Clinic	+	+	+	28	+	+	+	+	CH STEC	+	+
22	<i>Escherichia coli</i>	O111	Ad981	Animal	+	+	+	18	+	+	+	+	CH STEC	+	+
23	<i>Escherichia coli</i>	O111:H8	1251-31	Dairy product	+	+	+	16	+	+	+	+	CH STEC	+	+
24	<i>Escherichia coli</i>	O111:H8	1391-40	Dairy product	+	-	+	14	+	+	+	+	CH STEC	+	+
25	<i>Escherichia coli</i>	O111:H8	577-54	Dairy product	+	+	+	14	+	+	+	+	CH STEC	+	+
26	<i>Escherichia coli</i>	O111:H8	593-95	Dairy product	+	+	+	23	+	+	+	+	CH STEC	+	+
27	<i>Escherichia coli</i>	O111:H8	622-4	Dairy product	+	+	+	18	+	+	+	+	CH STEC	+	+
28	<i>Escherichia coli</i>	O111	Ad3037	Raw milk cheese	+	-	+	22	+	+	+	+	CH STEC	+	+
29	<i>Escherichia coli</i>	O111:H8	DEC8b	Clinic	+	+	+	20	+	+	+	+	CH STEC	+	+
30	<i>Escherichia coli</i>	O111:H8	Ad3021	Unknown	+	-	+	25	+	+	+	+	CH STEC	+	+
31	<i>Escherichia coli</i>	O145	Ad983	Animal	-	+	+	21	+	+	+	+	CH STEC	+	+
32	<i>Escherichia coli</i>	O145	Ad2310	Unknown	-	+	+	25	+	+	+	+	CH STEC	+	+

INCLUSIVITY															
N°	Strain	Serogroup	Reference	Origin	stx1	stx2	eae	Inoculation level CFU/225ml	Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen BPW pre-warmed 41.5°C-10h at 41,5°C						
									LAMP test		Confirmation		LAMP test on typical colony		
									stx	eae	TBX	CH-STEC	Plate	stx	eae
33	<i>Escherichia coli</i>	O145	Ad2841	Cheese	+	+	+	26	+	+	+	+	CH STEC	+	+
34	<i>Escherichia coli</i>	O145:H28	2305-1	Meat	-	+	+	13	+	+	+	+	CH STEC	+	+
35	<i>Escherichia coli</i>	O145:H28	1331-100	Meat	-	+	+	26	+	+	+	+	CH STEC	+	+
36	<i>Escherichia coli</i>	O145:H28	1502-105	Meat	-	+	+	23	+	+	+	+	CH STEC	+	+
37	<i>Escherichia coli</i>	O145:H28	1867-177	Meat	-	+	+	32	+	+	+	+	CH STEC	+	+
38	<i>Escherichia coli</i>	O145:H28	092-4	Meat	-	+	+	20	+	+	+	+	CH STEC	+	+
39	<i>Escherichia coli</i>	O145	Ad3040	Dairy product	+	-	+	17	+	+	+	+	CH STEC	+	+
40	<i>Escherichia coli</i>	O145	Ad3054	Dairy product	+	+	+	24	+	+	+	+	CH STEC	+	+
41	<i>Escherichia coli</i>	O157:H7	769	Ground beef and pork meat	-	+(a)	+	24	+	+	+(white)	+	TBX	+	+
42	<i>Escherichia coli</i>	O157:H7	803	Veal meat	-	+(c,d)	+	20	+	+	+(white)	+	TBX	+	+
43	<i>Escherichia coli</i>	O157:H7	1043	Frozen ground beef	+(a)	+(c,d)	+	29	+	+	+(white)	+	TBX	+	+
44	<i>Escherichia coli</i>	O157:H7	Ad489	Frozen beef balls	+	+	+	29	+	+	+(white)	+	TBX	+	+
45	<i>Escherichia coli</i>	O157:H7	Ad683	Ground beef	+	+	+	21	+	+	+(white)	+	TBX	+	+
46	<i>Escherichia coli</i>	O157:H7	Ad685	Beef industry environment	-	+	+	32	+	+	+(white)	+	TBX	+	+
47	<i>Escherichia coli</i>	O157:H7	Ad1174	Frozen ground beef	-	+	+	31	+	+	+(white)	+	TBX	+	+
48	<i>Escherichia coli</i>	O157:H7	Ad1745	Raw milk cheese	-	+	+	23	+	+	+(white)	+	TBX	+	+
49	<i>Escherichia coli</i>	O157:H7	52-33N°34	Meat	-	+	+	25	+	+	+	st	TBX	+	+
50	<i>Escherichia coli</i>	O157:H7	1211-1	Meat	-	+	+	25	+	+	+(white)	+	TBX	+	+



INCLUSIVITY															
N°	Strain	Serogroup	Reference	Origin	stx1	stx2	eae	Inoculation level CFU/225ml	Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen BPW pre-warmed 41.5°C-10h at 41,5°C						
									LAMP test		Confirmation		LAMP test on typical colony		
									stx	eae	TBX	CH-STEC	Plate	stx	eae
51	<i>Escherichia coli</i>	O45:H2	Ad1778	Unknown	+	-	+	15	+	+	+	+	TBX	+	+
52	<i>Escherichia coli</i>	O111: H8-	Ad1774	Clinic	-	+	-	27	+	-	+	+	TBX	+	-
53	<i>Escherichia coli</i>	O103:H2	Ad3097	Raw goat milk	+	-	-	30	+	-	+	st	TBX	+	-
54	<i>Escherichia coli</i>	O103	Ad3104	Dairy product	+	-	-	25	+	-	+	+	TBX	+	-
55	<i>Escherichia coli</i>	O91:H21	13482	Dairy product	+	+ b	-	30	+	-	+	st	TBX	+	-
56	<i>Escherichia coli</i>	O113:H21	STEC-19-50	Meat product	-	+	-	23	+	-	+	st	TBX	+	-
57	<i>Escherichia coli</i>	/	Ad3030	Raw ewe milk cheese	+	-	-	14	+	-	+	st	TBX	+	-
58	<i>Escherichia coli</i>	/	Ad3200	Environment	+	-	-	27	+	-	+	st	TBX	+	-
59	<i>Escherichia coli</i>	/	Ad3103	Beef meat	+	+	-	21	+	-	+	st	TBX	+	-
60	<i>Escherichia coli</i>	/	Ad3105	Lamb meat	+	-	-	19	+	-	+	+	TBX	+	-
61	<i>Escherichia coli</i>	/	Ad3108	Lamb meat	+	-	-	28	+	-	+	+	TBX	+	-
62	<i>Escherichia coli</i>	/	Ad3188	Curdled raw goat milk	+	+	-	22	+	-	+	st	TBX	+	-

EXCLUSIVITY										
N°	Strain	Serogroup	Reference	Origin	stx1	stx2	eae	Inoculation level CFU/ml	Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen BPW 24h at 37°C	
									LAMP test	
									stx	eae
1	<i>Escherichia coli</i>	O26:H11	AEEC 335	Dairy product	-	-	+	3.0E+05	-	+
2	<i>Escherichia coli</i>	O157:H26	AEEC 561	Meat product	-	-	+	2.0E+03	-	+
3	<i>Escherichia coli</i>	O145:H28	AEEC 1387-177	Dairy product	-	-	+	4.1E+05	-	+
4	<i>Escherichia coli</i>	O145:H28-	529-64	Meat product	-	-	-	2.5E+05	-	-
5	<i>Escherichia coli</i>	O145:-H28-	236-9	Dairy product	-	-	-	3.2E+05	-	-
6	<i>Escherichia coli</i>	O104:H21	Ad516	Clinic	-	-	-	6.2E+05	-	-
7	<i>Escherichia coli</i>	O44:H18	Ad519	Clinic	-	-	-	3.6E+05	-	-
8	<i>Escherichia coli</i>	O111:H2	Ad513	Clinic	-	-	+	5.6E+05	-	+
9	<i>Escherichia coli</i>	O111:H21	Ad508	Clinic	-	-	-	1.0E+03	-	-
10	<i>Escherichia coli</i>	O103	Ad1743	Meat product	-	-	-	4.2E+05	-	-
11	<i>Escherichia coli</i>	O103	Ad1862	Dairy product	-	-	+	4.4E+05	-	+
12	<i>Escherichia coli</i>	O26	Ad1739	Dairy product	-	-	+	3.1E+05	-	+
13	<i>Escherichia coli</i>	O26	Ad1864	Meat product	-	-	+	4.2E+05	-	+
14	<i>Escherichia coli</i>	O26	Ad2677	Dairy product	-	-	+	4.3E+05	-	+
15	<i>Escherichia coli</i>	O157:H7	ENV177	Environment	-	-	+	8.3E+05	-	+
16	<i>Escherichia coli</i>	O157:H7	Ad2301	Environment	-	-	+	4.2E+05	-	+
17	<i>Escherichia coli</i>	O92:H33	Ad503	Clinic	-	-	-	3.0E+05	-	-
18	<i>Escherichia coli</i>	O78:H11	ATCC 35401	Clinic	-	-	-	3.8E+05	-	-

EXCLUSIVITY										
N°	Strain	Serogroup	Reference	Origin	stx1	stx2	eae	Inoculation level CFU/ml	Alternative method: NEOGEN® Molecular Detection Assay 2 - STEC Gene Screen BPW 24h at 37°C	
									LAMP test	
									stx	eae
19	<i>Escherichia coli</i>	O6:H6	Ad506	Clinic	-	-	-	2.4E+05	-	-
20	<i>Escherichia coli</i>	O6:H10	Ad507	Clinic	-	-	-	7.5E+05	-	-
21	<i>Escherichia coli</i>	O86:H43	Ad509	Elephant	-	-	-	3.9E+05	-	-
22	<i>Escherichia coli</i>	O128:H2	Ad512	Clinic	-	-	+	4.2E+05	-	+
23	<i>Escherichia coli</i>	O78:K80:H12	ATCC 43896	Clinic	-	-	-	2.8E+05	-	-
24	<i>Escherichia coli</i>	O104:H21	Ad504	Clinic	-	-	-	4.4E+05	-	-
25	<i>Escherichia coli</i>	O55:H7	Ad518	Clinic	-	-	+	3.6E+05	-	+
26	<i>Escherichia coli</i>	O127:H6	Ad520	Clinic	-	-	+	3.3E+05	-	+
27	<i>Escherichia coli</i>	O126	Ad1776	Clinic	-	-	-	1.8E+05	-	-
28	<i>Escherichia coli</i>	O45:H2	Ad3084	Beef meat	-	-	-	2.9E+05	-	+
29	<i>Escherichia coli</i>	O121	Ad1779	Unknown	-	-	+	4.0E+05	-	+
30	<i>Citrobacter rodentium</i>	/	ATCC 51116	Hamster	-	-	-	1.4E+03	-	+

Appendix 9 - Inter-laboratory study: raw data

ILS n°1

Collaborator A

Date of analysis: 14/02/2024
Reference: 23h
Alternative: 10h
1.1.10⁴ CFU/g (diluted with mTSB)

Aerobic mesophilic flora:

N° Sample	Reference Method: ISO/TS 13136													Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C													
														Kit result			Confirmation								Confirmation final result	Final result	
	Direct streaking																										
	Option 2: ADRIA internal method										Final Result		Typical colonies		MDA on typical colonies			Indol									
	PCR results		Final PCR Result	Direct streaking		Media tested	PCR results		Final PCR Result	Indol	Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	CHROMagar STEC		TBX	Amplification result			Result (+/-)				
stx	eae	CHROMagar STEC		TBX	stx		eae	Result (+/-)						Result (+/-)	Typical colonies (+/-)	Typical colonies (+/-)	Plate	stx	eae	Result (+/-)	stx	stx/eae	stx	stx/eae			
1	+32.9	+31.43	+	-	-	/	/	/	/	/	-	-	-	-	-	-	d	/	/	/	/	-	-	-	NA	NA	
5	+32.58	+32.57	+	-	d	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
7	+32.14	+37.68	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
12	+32.26	+31.63	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
15	+32.53	+31.95	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
17	+38.4	+36.97	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
19	+36.48	+32.23	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
23	+34.82	+31.68	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
2	+36.28	+32.77	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
3	+25.08	+25.09	+	+	+	CHROMagar	19.52	19.41	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
8	+21.79	+22.23	+	+	+	CHROMagar	18.53	17.57	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
10	+29.52	+27.61	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
13	+27.03	+27.07	+	+	+	CHROMagar	20.03	20.23	+	+	+	+	+	+	+	+	+	TBX	+	+	+	+	+	+	+	PA	PA
16	+33.18	+30.82	+	-	d	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
21	+32.11	+32.62	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	TBX	+	+	+	+	+	+	PD	PD
24	+25.23	+25.46	+	+	+	CHROMagar	18.02	17.20	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
4	+6.42	+17.68	+	+	+	CHROMagar	17.32	16.89	+	+	+	+	+	+	+	+	+	TBX	+	+	+	+	+	+	+	PA	PA
6	+21.44	+21.59	+	+	+	CHROMagar	20.18	19.15	+	+	+	+	+	+	+	+	+	TBX	+	+	+	+	+	+	+	PA	PA
9	+18.3	+18.7	+	+	+	CHROMagar	16.65	13.02	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
11	+17.19	+17.82	+	+	+	CHROMagar	16.63	11.95	+	+	+	+	+	+	+	+	+	TBX	+	+	+	+	+	+	+	PA	PA
14	+18.08	+18.49	+	+	+	CHROMagar	17.07	10.60	+	+	+	+	+	+	+	+	+	TBX	+	+	+	+	+	+	+	PA	PA
18	+19.16	+19.33	+	+	+	CHROMagar	18.52	18.12	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
20	+25.42	+25.33	+	+	+	CHROMagar	18.29	16.95	+	+	+	+	+	+	+	+	+	TBX	+	+	+	+	+	+	+	PA	PA
22	+28.73	+28.26	+	+	+	CHROMagar	17.79	17.40	+	+	+	+	+	+	+	+	+	TBX	+	+	+	+	+	+	+	PA	PA

Collaborator C

Date of analysis: 12/02/2024
Reference: 22h
Alternative: 10h
2.1 x 10³ CFU/g

Aerobic mesophilic flora:

N° Sample	Reference Method: ISO/TS 13136													Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C														
														NEOGEN® MDA2 STEC Gene Screen result			Confirmation								Confirmation final result	Final result		Agreement Ref/Alt
	Direct streaking																											
	Option 1: internal method										Final Result		Typical colonies		MDA on typical colonies				Indol									
	PCR results		Final PCR Result	Confirmation						Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	CHROMagar STEC	TBX	Amplification result										
Direct streaking				Media tested	PCR results		Final PCR Result	Indol	Typical colonies (+/-)							Typical colonies (+/-)	Plate	stx	eae	Result (+/-)								
stx	eae	CHROMagar STEC	TBX		stx	eae			stx	eae	Result (+/-)	Result (+/-)	Typical colonies (+/-)	Typical colonies (+/-)	Plate	stx	eae	Result (+/-)	stx	stx/eae	stx	stx/eae						
1	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
5	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
7	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
12	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
15	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
17	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
19	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
23	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
2	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
3	+	+	+	+	+	CH	+	+	+	+	+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND	
8	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
10	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
13	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
16	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
21	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
24	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
4	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
6	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
9	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
11	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
14	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
18	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
20	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
22	+	+	+	+	+	CH	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA

Collaborator D1

Date of analysis: 19/02/2024
Reference: 21h
Alternative: 10h
>3 x 10⁶ CFU/g

Aerobic mesophilic flora:

N° Sample	Reference Method: ISO/TS 13136													Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C													
														MDA result			Confirmation								Confirmation final result	Final result	
	Direct streaking																										
	Option 2: ADRIA internal method										Final Result		Typical colonies			MDA on typical colonies			Indol								
	PCR results		Final PCR Result	Confirmation				PCR results		Final PCR Result	Indol	Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	CHROMagar STEC		TBX	Amplification result			Result (+/-)			
stx	eae	CHROMagar STEC		TBX	Media tested	stx	eae	Plate	stx										eae								
1	N/A	N/A	-	-	+	TBX	N/A	N/A	-	+	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
5	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
7	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
12	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
15	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
17	N/A	N/A	-	-	+	TBX	N/A	N/A	-	+	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
19	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
23	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
2	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
3	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
8	N/A	N/A	-	+	-	CHROMagar	N/A	N/A	-	+	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
10	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
13	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
16	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
21	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
24	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
4	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
6	29.66	32.10	-	+	-	CHROMagar	9.43	8.39	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
9	+28.51	+28.97	+	+	+	CHROMagar	11.98	11.09	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
11	+26.94	+26.47	+	+	+	CHROMagar	8.79	7.97	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
14	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
18	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
20	+30.53	+29.45	+	+	+	CHROMagar	10.88	12.22	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
22	+21.46	+21.66	+	+	+	CHROMagar	10.88	7.47	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA

Collaborator D2

Date of analysis: 19/02/2024
Reference: 21h
Alternative: 10h
>3.10⁶ CFU/g

Aerobic mesophilic flora:

N° Sample	Reference Method: ISO/TS 13136													Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C													
														MDA result			Confirmation								Confirmation final result	Final result	
	Direct streaking																										
	Option 2: ADRIA internal method										Final Result		Typical colonies		MDA on typical colonies		Indol Result (+/-)										
	PCR results		Final PCR Result	Confirmation				Final confirmation result	stx	stx/ eae	stx	eae	Final MDA result	CHROMagar STEC	TBX	Amplification result											
stx	eae	Direct streaking		Media tested	PCR results		Final PCR Result									Indol	Typical colonies (+/-)	Typical colonies (+/-)	Plate	stx	eae						
			CHROMagar STEC		TB X			stx	eae						Result (+/-)		Result (+/-)		Typical colonies (+/-)	Typical colonies (+/-)						stx	stx/eae
26	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
29	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
32	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
34	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
37	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
39	N/A	N/A	-	-	+	TBX	N/A	N/A	-	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
43	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
48	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
27	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
33	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
36	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
38	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
40	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
41	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
44	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
46	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
25	+23.81	+23.97	+	+	+	CHROMagar	9.37	10.53	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
28	+26.01	+26.26	+	+	+	CHROMagar	7.24	16.82	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
30	+24.48	+25	+	+	+	CHROMagar	18.89	12.03	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
31	+32.21	+32.02	+	+	-	CHROMagar	9.68	12.21	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
35	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
42	+25.59	+25.93	+	+	+	CHROMagar	8.38	15.76	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
45	+25.8	+25.78	+	+	+	CHROMagar	17.32	17.12	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
47	+23.21	+23.94	+	+	+	CHROMagar	16.04	16.23	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	

Collaborator E

Date of analysis: 14/02/2024
Reference:
Alternative:
1.1 x 10⁵ CFU/g

Aerobic mesophilic flora:

N° Sample	Reference Method: ISO/TS 13136											Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C																
												MDA result			Confirmation								Confirmation final result		Final result		Agreement Ref/Alt	
	Direct streaking																											
	Option 2: ADRIA internal method					Final Result		Typical colonies		MDA on typical colonies			Indol															
	PCR results		Final PCR Result	Direct streaking		Media tested	PCR results		Final PCR Result	Indol	Final confirmation Result	stx		stx/ee	stx	ee	Final MDA result	CHROMagar STEC	TBX	Amplification result			Result (+/-)	stx	stx/ee	stx	stx/ee	
stx	ee	CHROMagar STEC		TBX	stx		ee	Plate					stx							ee								
1	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
5	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
7	+39.24	+33.43	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
12	+33.3	+31.99	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
15	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
17	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
19	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
23	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
2	+20.57	+20.31	+	+	-	CHROMagar	19.22	18.84	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
3	+22	+22.11	+	+	+	CHROMagar	18.56	18.05	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
8	+22.7	+23.4	+	+	-	CHROMagar	18.25	17.39	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
10	+37.41	+33.56	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PD	PD
13	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PD	PD
16	+24.07	+24.19	+	+	-	CHROMagar	18.80	18.37	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
21	+22.10	+22.05	+	+	-	CHROMagar	18.69	18.33	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
24	+24.21	+24.63	+	+	-	CHROMagar	9.81	10.75	+	+	+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND	
4	+18.09	+18.58	+	+	+	CHROMagar	18.02	18.81	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
6	+17.81	+18.07	+	+	+	CHROMagar	18.63	17.94	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
9	+24.67	+25.07	+	+	+	CHROMagar	9.54	16.72	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
11	+34.31	+33.17	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PD	PD
14	+19.16	+19.54	+	+	-	CHROMagar	17.92	17.01	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
18	+18.98	+19.11	+	+	+	CHROMagar	17.84	17.19	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
20	+8.63	+17.72	+	+	+	CHROMagar	18.00	17.93	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
22	+20.74	+20.68	+	+	-	CHROMagar	18.17	12.18	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA

Collaborator G

Date of analysis: 15/02/2024
Reference: 24h
Alternative: 10h
2.1 x 10³ CFU/g

Aerobic mesophilic flora:

N° Sample	Reference Method: ISO/TS 13136													Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C														
														MDA result			Confirmation								Confirmation final result	Final result		Agreement Ref/Alt
	Direct streaking																											
	PCR results		Final PCR Result	Confirmation						Final confirmation Result	stx	stx/eae	Typical colonies		MDA on typical colonies		Indol											
				Direct streaking		Media tested	PCR results		Final PCR Result									Indol										
stx	eae	CHROMagar STEC	TBX	stx	eae		Final PCR Result	Indol		Result (+/-)	eae Result (+/-)	Final MDA result	CHROMagar STEC Typical colonies (+/-)	TBX Typical colonies (+/-)	Amplification result				Result (+/-)	stx	stx/eae	stx	stx/eae					
1	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	+	TBX	-	-	/	-	-	-	NA	NA	
5	+34.42	+34.59	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	+	TBX	-	-	/	-	-	-	NA	NA	
7	+33.90	+33.23	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
12	+35.79	+32.85	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
15	+34.59	+35.51	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	+	TBX	-	-	/	-	-	-	NA	NA	
17	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
19	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
23	N/A	+37.00	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
2	+24.90	+24.91	+	+	+	CHROMagar	11.48	11.72	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
3	+30.44	+29.09	+	+	+	CHROMagar	8.33	15.28	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
8	+26.41	+26.45	+	+	+	CHROMagar	7.46	15.80	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
10	+27.46	+27.02	+	+	+	CHROMagar	13.16	14.85	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
13	+36.67	+34.54	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PD	PD
16	+22.13	+21.83	+	+	+	CHROMagar	17.11	16.68	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
21	+22.48	+22.66	+	+	+	CHROMagar	12.23	15.51	+	+	+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND	
24	N/A	+34.69	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PD	PD
4	+10.50	+6.31	+	+	+	CHROMagar	13.09	7.48	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
6	+22.25	+21.93	+	+	+	CHROMagar	9.60	10.54	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
9	+17.43	+17.55	+	+	+	CHROMagar	11.38	11.86	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
11	+16.68	+16.82	+	+	+	CHROMagar	12.07	15.68	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
14	+11.58	+17.15	+	+	+	CHROMagar	10.71	16.23	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
18	+22.94	+22.13	+	+	+	CHROMagar	8.28	15.39	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
20	+18.64	+18.34	+	+	+	CHROMagar	16.37	16.05	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
22	+13.77	+16.35	+	+	+	CHROMagar	15.46	16.12	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA

Collaborator H

Date of analysis: 22/02/2024
Reference: 20h
Alternative: 10h
1.1 x 10⁹ CFU/g

Aerobic mesophilic flora:

N° Sample	Reference Method: ISO/TS 13136											Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C														
												MDA result			Confirmation							Confirmation final result	Final result		Agreement Ref/Alt	
	Direct streaking																									
	Option 2: ADRIA internal method										Final Result		Typical colonies		MDA on typical colonies		Indol									
	PCR results		Final PCR Result	Confirmation				Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	CHROMagar STEC	TBX	Amplification result			Result (+/-)	stx	stx/eae		stx	stx/eae		
stx	eae	CHROMagar STEC		TBX	Media tested	stx	eae				Final PCR Result	Indol	Result (+/-)	Result (+/-)	Typical colonies (+/-)	Typical colonies (+/-)	Plate	stx	eae	Result (+/-)						
1	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
5	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
7	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
12	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
15	34.95	39.93	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
17	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
19	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
23	32.80	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
2	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
3	33.17	32.27	+	+	-	CHROMagar	16.00	15.83	+	+	+	+	+	-	-	-	/	/	/	/	-	-	-	ND	ND	
8	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
10	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	PD	PD
13	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
16	N/A	36,67	-	+	-	CHROMagar	10.99	16.04	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
21	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	PD	PD
24	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	PD	PD
4	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	PD	PD
6	30.84	30.53	+	+	-	CHROMagar	12.04	15.94	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
9	33.74	31.88	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	TBX	+	+	+	+	+	PD	PD
11	31.00	30.99	+	+	-	CHROMagar	16.54	11.71	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
14	26.62	26.56	+	+	+	CHROMagar	16.34	16.53	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
18	27.37	26.91	+	+	+	CHROMagar	15.82	16.02	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
20	30.84	31.08	+	+	+	CHROMagar	16.32	16.28	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA	
22	31.48	30.73	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	PD	PD

Collaborator I

Date of analysis: 20/02/2024
Reference: 22h
Alternative: 10h
4.1 x 10³ CFU/g (48h at 37°C)

Aerobic mesophilic flora:

N° Sample	Reference Method: ISO/TS 13136												Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C														
													MDA result			Confirmation								Confirmation final result	Final result		Agreement Ref/Alt
	Direct streaking																										
	Option 2: ADRIA internal method										Final Result		Typical colonies		MDA on typical colonies		Indol										
	PCR results		Final PCR Result	Confirmation				Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	CHROMagar STEC	TBX	Amplification result			Result (+/-)								
stx	eae	CHROMagar STEC		TBX	Media tested	stx	eae							Final PCR Result	Indol	Typical colonies (+/-)	Typical colonies (+/-)	Plate		stx	eae						
1	N/A	N/A	-	+	+	TBX	N/A	N/A	-	+	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
5	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
7	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	0	0
12	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
15	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
17	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
19	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
23	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
2	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
3	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
8	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
10	N/A	N/A	-	-	+	TBX	N/A	N/A	-	+	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
13	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
16	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
21	N/A	N/A		-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
24	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
4	28.69	30.30	+	+	+	CHROMagar	15.21	8.10	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
6	29.22	31.72	+	+	+	CHROMagar	N/A	N/A	-	+	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
9	24.87	25.08	+	+	+	CHROMagar	16.67	17.19	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
11	29.64	33.18	+	+	+	CHROMagar	16.27	17.12	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
14	N/A	N/A	-	+	+	CHROMagar	N/A	N/A	-	-	-	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
18	31.14	34.12	+	-	+	TBX	6.72	11.96	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
20	27.14	27.73	+	+	+	CHROMagar	6.19	9.72	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
22	28.86	29.07	+	+	+	CHROMagar	7.16	6.76	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA

Collaborator J= ADRIA

Date of analysis: 14/02/2024
Reference : 18h
Alternative: 10h
1.1 x 10³ CFU/g

Aerobic mesophilic flora:

N° Sample	Reference Method: ISO/TS 13136*												Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C													
													MDA result			Confirmation								Confirmation final result	Final result	
	Direct streaking																									
	Option 2: ADRIA internal method										Final Result		Typical colonies		MDA on typical colonies			Indol								
	PCR results		Final PCR Result	Confirmation				Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	CHROMagar STEC	TBX	Amplification result			Result (+/-)							
stx	eae	CHROMagar STEC		TBX	Media tested	stx	eae									Final PCR Result	Indol	Plate		stx	eae					
1	-	-	-	-	-	/	/	/		/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
5	-	-	-	-	-	/	/	/		/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
7	-	-	-	-	-	/	/	/		/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
12	-	-	-	-	-	/	/	/		/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
15	-	-	-	-	-	/	/	/		/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
17	-	-	-	-	-	/	/	/		/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
19	-	-	-	-	-	/	/	/		/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
23	-	-	-	-	-	/	/	/		/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
2	-	-	-	-	-	/	/	/		/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
3	+	+	+	+	+	CH	+	+		+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND
8	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
10	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
13	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
16	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
21	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
24	-	-	-	-	-	/	/	/		/	-	-	-	+	+	+	+	CH	+	+	+	+	+	+	PD	PD
4	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
6	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
9	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
11	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
14	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
18	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
20	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
22	+	+	+	+	+	CH	+	+		+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA

♦ Analyses performed according to the COFRAC accreditation (Accreditation n°1-0144, scope available on www.cofrac.fr)

ILS n°2

Collaborator A1

Date of analysis: 05/02/2025
Reference : 22h
Alternative : 10h

Aerobic mesophilic flora:

5.1 x 10⁵ CFU/g

N° Sample	Reference Method ISO/TS 13136												Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C														
													MDA result			Confirmation								Confirmation final result	Final result		Agreement Ref/Alt
	Direct streaking																										
	Option 2: ADRIA internal method										Final Result		Typical colonies		MDA on typical colonies			Indol									
	PCR results		Final PCR Result	Direct streaking		Media tested	PCR results		Final PCR Result	Indol	Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	CHROMagar STEC		TBX	Amplification result			Result (+/-)				
stx	eae	CHROMagar STEC		TBX	stx		eae	Plate										stx		eae							
1	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
6	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
10	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
13	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
15	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
19	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
21	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
23	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
2	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
4	18.71	18.80	+	+	+	CHROMagar	8.68	8.32	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
5	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
8	20.69	20.49	+	+	+	CHROMagar	15.71	15.52	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
11	7.97	18.12	+	+	+	CHROMagar	8.11	11.66	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
17	19.26	19.14	+	+	+	CHROMagar	11.54	7.77	+	+	+	+	+	+	+	+	+	+	/	/	/	/	-	-	-	ND	ND
20	18.89	18.34	+	+	+	CHROMagar	10.47	10.62	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
24	N/A/ N/A/ N/A	23.37	-/-	+	+	CHROMagar	8.27	7.51	+	+	+	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
3	17.57	17.46	+	+	+	CHROMagar	11.21	6.49	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
7	17.61	22.15	+	+	+	CHROMagar	15.20	11.03	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
9	8.27	16.33	+	+	+	CHROMagar	14.67	12.05	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
12	18.19	17.84	+	+	+	CHROMagar	10.04	6.09	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
14	16.98	16.63	+	+	+	CHROMagar	12.77	6.43	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
16	17.64	17.43	+	+	+	CHROMagar	9.88	9.56	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
18	17.18	17.54	+	+	+	CHROMagar	10.55	8.60	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
22	17.34	17.13	-	+	+	CHROMagar	14.52	9.44	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA

Collaborator A2

Date of analysis: 05/02/2025
Reference : 21h40
Alternative : 10h
5.1 x10⁵ CFU/g

Aerobic mesophilic flora:

N° Sample	Reference Method ISO/TS 13136												Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C															
													MDA result			Confirmation								Confirmation final result	Final result		Agreement Ref/Alt	
	Direct streaking																											
	Option 2: ADRIA internal method				Final Result		Typical colonies		MDA on typical colonies			Indol																
	PCR results		Final PCR Result	Confirmation			Final confirmation Result	stx	stx/eae	stx	eae		Final MDA result	CHROMagar STEC	TBX	Amplification result			Result (+/-)									
stx	eae	Direct streaking		Media tested	PCR results							Final PCR Result				Indol	Typical colonies (+/-)	Typical colonies (+/-)		Plate	stx	eae						
			CHROMagar STEC		TBX		stx	eae							Result (+/-)		Result (+/-)		Typical colonies (+/-)	Typical colonies (+/-)		stx	eae	Result (+/-)	stx	stx/eae	stx	stx/eae
26	31.37/37.46/38.63	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
31	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
32	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
34	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
38	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
41	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
44	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
46	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
27	8.95	16.36	+	+	+	CHROMagar	11.70	15.19	+	+	+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND	
28	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
30	11.80	16.23	+	+	+	CHROMagar	14.83	7.29	+	+	+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND	
33	20.39	20.18	+	+	+	CHROMagar	15.47	15.07	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
37	19.77	19.46	+	+	+	CHROMagar	12.52	10.79	+	+	+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND	
39	N/A	38.09	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
42	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
48	N/A	N/A	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA	
25	17.53	17.31	+	+	+	CHROMagar	10.73	15.30	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
29	17.15	17.00	+	+	+	CHROMagar	15.25	15.01	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
35	19.00	18.30	+	+	+	CHROMagar	15.63	11.19	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
36	19.36	19.14	+	+	+	CHROMagar	15.72	15.49	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
40	17.75	17.57	+	+	+	CHROMagar	12.64	14.83	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
43	18.06	17.80	+	+	+	CHROMagar	15.13	11.09	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
45	18.91	18.79	+	+	+	CHROMagar	11.56	9.24	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA
47	17.29	17.11	+	+	+	CHROMagar	15.13	8.76	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	PA	PA

Collaborator B

Date of analysis: 05/02/2025
Reference : 23h
Alternative : 10h
7.1 x10⁴ CFU/g

Aerobic mesophilic flora:

N° Sample	Reference Method ISO/TS 13136												Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C													
													MDA result			Confirmation								Confirmation final result	Final result	
	Direct streaking																									
	Option 2: ADRIA internal method				Final Result		Typical colonies			MDA on typical colonies			Indol													
	PCR results		Final PCR Result	Confirmation			CHROMagar STEC	TBX	Amplification result																	
stx	eae	CHROMagar STEC		TBX	Media tested	stx	eae	Final PCR Result	Indol	Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	Typical colonies (+/-)	Typical colonies (+/-)	Plate	stx	eae	Result (+/-)	stx	stx/eae	stx	stx/eae	
1	33.81/35.18/36.28	32.09/32.89/32.87	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
6	33.10/34.25/34.11	30.77/31.29/31.14	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
10	33.46/38.60/38.30	32.46/33.12/32.72	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
13	34.38/37.26/39.93	31.67/32.41	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
15	N/A	33.17/33.73/34.82	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
19	32.53/34.81/34.36	31.22/31.43/31.95	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
21	35.48/-/-	32.91/33.70/34.29	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
23	N/A	34.20/35.43/35.20	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
2	17.18	6.92	+	+	+	CHROMagar	17.71	16.83	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
4	20.82	18.78	+	+	+	CHROMagar	18.39	18.12	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
5	31.05/33.07/33.15	29.57/30.19/30.31	+	-	-	/	/	/	/	/	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
8	32.38/35.14/36.06	31.00/31.84/31.63	+	-	-	/	/	/	/	/	-	-	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PD	PD
11	18.61	18.13	+	+	+	CHROMagar	19.48	18.43	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
17	8.92	15.21	+	+	+	CHROMagar	17.62	17.19	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
20	23.03	22.46	+	+	+	CHROMagar	20.57	20.63	+	+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND
24	7.20	15.89	+	+	+	CHROMagar	21.30	20.80	+	+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND
3	13.13	15.13	+	+	+	CHROMagar	18.31	17.50	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
7	10.28	15.24	+	+	+	CHROMagar	19.03	18.46	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
9	16.03	15.82	+	+	+	CHROMagar	18.53	17.97	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
12	18.05	17.16	+	+	+	CHROMagar	17.66	17.08	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
14	6.90	8.76	+	+	+	CHROMagar	18.74	17.89	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
16	6.07	6.25	+	+	+	CHROMagar	17.58	16.99	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
18	10.33	6.53	+	+	+	CHROMagar	18.07	18.08	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
22	11.45	15.21	+	+	+	CHROMagar	20.27	19.98	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA

Collaborator C

Date of analysis: 04/02/2025
Reference : 21h15
Alternative : 10h00 (store at 4°C)
1.1 x 10⁵ CFU/g

Aerobic mesophilic flora:

N° Sample	Reference Method ISO/TS 13136													Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C													
														MDA result			Confirmation								Confirmation final result	Final result	
	Direct streaking																										
	Option 1: internal method										Final Result		Typical colonies		MDA on typical colonies			Indol									
	PCR results		Final PCR Result	Direct streaking		Media tested	PCR results		Final PCR Result	Indol	Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	CHROMagar STEC		TBX	Amplification result			Result (+/-)				
stx	eae	CHROMagar STEC		TBX	stx		eae	Plate										stx		eae							
1	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
6	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
10	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
13	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
15	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
19	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
21	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
23	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
2	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
4	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
5	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	-	-	-	-	-	CHROMagar	+	+	+	+	+	+	PA	PA
8	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
11	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
17	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
20	+	+	+	+	-	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
24	-	-	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
3	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
7	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
9	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
12	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
14	+	+	+	+	-	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
16	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
18	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA
22	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	+	+	+	+	+	+	CHROMagar	+	+	+	+	+	+	PA	PA

Collaborator E

Date of analysis:06/02/2025
Reference : 20h
Alternative : 10h
8.1 x10⁶ CFU/g

Aerobic mesophilic flora:

N°Sample	Reference Method ISO/TS 13136													Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C													
														MDA result			Confirmation								Confirmation final result	Final result	
	Direct streaking																										
	Option 2: ADRIA internal method										Final Result		Typical colonies			MDA on typical colonies			Indol								
	PCR results		Final PCR Result	Confirmation						Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	CHROMagar STEC	TBX	Amplification result									
stx	eae	CHROMagar STEC		TBX	Media tested	stx	eae	Final PCR Result	Indol							Typical colonies (+/-)	Typical colonies (+/-)	Plate	stx	eae	Result (+/-)	stx	stx/eae	stx	stx/eae		
1	N/A	37.49	-	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
6	33.08	30.37	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
10	36.54	32.63	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
13	38.42	33.74	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
15	36.04	32.44	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
19	36.49	32.91	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
21	39.25	33.94	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
23	41.66	34.51	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
2	18.25	17.31	+	+	+	TBX	16.31	13.26	+	+	+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND
4	39.85	36.17	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
5	30.96	29.26	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	PD	PD
8	23.43	22.72	+	+	+	TBX	16.33	12.38	+	+	+	+	+	-	-	-	-	-	/	/	/	/	-	-	-	ND	ND
11	38.63	35.67	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
17	35.49	32.25	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	PD	PD
20	34.37	32.36	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	PD	PD
24	41.1	34.64	+	-	-	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
3	24.02	23.88	+	+	+	TBX	11.49	15.34	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	PA
7	24.63	23.55	+	+	+	TBX	15.68	13.41	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	PA
9	27.86	26.88	+	+	+	TBX	16.57	16.56	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	PA
12	20.07	19.84	+	+	+	TBX	15.86	15.31	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	PA
14	21.22	20.27	+	+	+	TBX	17.11	16.5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	PA
16	20.04	19.51	+	+	+	TBX	13.4	15.02	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	PA
18	25.65	24.59	+	+	+	TBX	16.1	15.06	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	PA
22	38.44	34.04	+	-	-	/	/	/	/	/	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	PD	PD

Collaborator

F

ADRIA

Date of analysis:05/02/2025
Reference : 18h
Alternative : 10h
6.1 x 10³ CFU/g

Aerobic mesophilic flora:

N°Sample	Reference Method ISO/TS 13136*												Alternative method: NEOGEN® MDA2 STEC Gene Screen - Pre-warmed BPW 10h at 41.5°C													
													MDA result			Confirmation						Confirmation final result	Final result		Agreement Ref/Alt	
	Direct streaking																									
	Option 2: ADRIA internal method										Final Result		Typical colonies			MDA on typical colonies			Indol							
	PCR results		Final PCR Result	Confirmation				Final confirmation Result	stx	stx/eae	stx	eae	Final MDA result	CHROMagar STEC	TBX	Amplification result				Result (+/-)						
stx	eae	Direct streaking		Media tested	PCR results		Final PCR Result				Indol	Result (+/-)		Result (+/-)	Typical colonies (+/-)	Typical colonies (+/-)	Plate	stx	eae	Result (+/-)	stx	stx/eae	stx	stx/eae		
1	-	-	-		/	/		/	/	/		/	-	-	-	-	-	-	-	-	/	/	/	/	-	-
6	-	-	-	/	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
10	-	-	-	/	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
13	-	-	-	/	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
15	-	-	-	/	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
19	-	-	-	/	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
21	-	-	-	/	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
23	-	-	-	/	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
2	18.26	18.25	+	+	+	CHROMagar	6.46	17.94	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
4	19.17	19.33	+	+	+	CHROMagar	19.24	20.10	+	+	+	+	+	-	-	-	-	/	/	/	/	-	-	-	ND	ND
5	-	-	-	/	/	/	/	/	/	-	-	-	-	-	-	-	-	/	/	/	/	-	-	-	NA	NA
8	25.07	25.12	+	+	+	CHROMagar	18.90	18.12	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
11	21.30	21.63	+	+	+	CHROMagar	19.68	18.30	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
17	22.64	23.38	+	+	+	CHROMagar	19.58	18.34	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
20	-	-	-	/	/	/	/	/	/	-	-	-	+	+	+	+	+	CH	+	+	+	+	+	+	PD	PD
24	-	-	-	/	/	/	/	/	/	-	-	-	+	+	+	+	+	CH	+	+	+	+	+	+	PD	PD
3	7.51	15.67	+	+	+	CHROMagar	19.75	18.16	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
7	18.86	18.83	+	+	+	CHROMagar	19.00	17.66	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
9	8.04	17.27	+	+	+	CHROMagar	18.78	18.02	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
12	19.20	19.50	+	+	+	CHROMagar	19.63	18.79	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
14	19.06	19.45	+	+	+	CHROMagar	18.85	17.80	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
16	18.21	18.35	+	+	+	CHROMagar	19.72	18.16	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
18	20.73	21.13	+	+	+	CHROMagar	20.00	18.95	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA
22	15.93	16.25	+	+	+	CHROMagar	19.23	18.17	+	+	+	+	+	+	+	+	+	CH	+	+	+	+	+	+	PA	PA

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)